

EVIDENTIARY HEARING  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
Application for Certification	)	Docket No.
for the Morro Bay Power Plant	)	00-AFC-12
Project	)	
_____	)	

VETERANS MEMORIAL BUILDING  
209 SURF STREET  
MORRO BAY, CALIFORNIA

WEDNESDAY, JUNE 5, 2002

9:20 a.m.

Reported by:  
James A. Ramos  
Contract No. 170-01-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS PRESENT

James D. Boyd, Commissioner, Presiding Member

William Keese, Chairman, Associate Member

HEARING OFFICER PRESENT

Gary Fay, Hearing Officer

STAFF AND CONSULTANTS PRESENT

Caryn Holmes, Staff Counsel

Michael Smith

Mark Hamblin, MPA, Planner II

Marc Pryor, Project Manager

Susan Lee

Michael Clayton, Principal  
Michael Clayton & Associates

James Henneforth, Principal  
Pacific Group Electric Power, LLC

Jim Buntin, Vice President  
Brown Buntin Associates, Inc.

Richard Anderson

Susan Walker, Senior Associate  
Aspen Environmental Group

Andrea Erichsen

APPLICANT

Christopher T. Ellison, Attorney  
Jeffrey D. Harris, Attorney  
Ellison, Schneider and Harris

APPLICANT - continued

Andrew L. Trump, Director of Business Development  
Western Region

Robert E. Cochran, II, Project Manager  
Michael S. Pollack, PE, Project Director  
Duke Energy North America

Brian Waters, Senior Fisheries Scientist  
Duke Engineering and Services

Russell J. Poquette, Executive Project Director  
Duke/Fluor Daniel

Peter Okurowski, Senior Associate  
California Environmental Associates

Bob Mantey, Principal Consultant  
Alliance Acoustical Consultants, Inc.

Robert B. Weisenmiller, PhD  
MRW & Associates

Bruce J. Saldinger, Consultant

Frank Ortega, Director of Sales and Marketing  
GEA Power Cooling Systems, Inc.

INTERVENORS

Babak Naficy, Staff Attorney  
Environmental Defense Center, CAPE

Robert Schultz, City Attorney  
City of Morro Bay

Steven J. Elie, Attorney  
Musick, Peeler, Garrett, LLP

Henriette Groot, President  
Pamela Soderbeck, Morro Bay resident  
Coastal Alliance on Plant Expansion

ALSO PRESENT

Paul Curfman, Associate, EDAW, Inc.

Kirk Marckwald

Bill Powers, Powers Engineering

Gary Clay

Dan Chia, California Coastal Commission  
(telephonically)

Richard Smith, PhD, resident of Morro Bay

Leslie Neely-Smith, RN, resident of Morro Bay

Laura Hunter, Director, Clean Bay Campaign  
Environmental Health Coalition  
San Diego Bay Council

Colleen Johnson, resident of Morro Bay

Eric Johnson, resident of Morro Bay

Nelson Sullivan, resident of Morro Bay

Mandy Davis, resident of Morro Bay

John Hammond, Business Manager  
Local Union 409, Plumbers & Pipefitters

William Peirce, Vice Mayor, City of Morro Bay

Jim Wood, resident of Morro Bay

Bill Olson, resident of Morro Bay

David Nelson, resident of Morro Bay

Bill Yates, resident of Morro Bay

John Barta, resident of Morro Bay

Kim Kimball, Executive Director  
Morro Bay Chamber of Commerce

Colby Crotzer, Morro Bay City Council

Rodger Anderson, Mayor, City of Morro Bay

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## P R O C E E D I N G S

9:20 a.m.

HEARING OFFICER FAY: Good morning.

This is the second day of the fourth set of hearings, evidentiary hearings for the Duke Energy Morro Bay Power Plant Project. And today, as per the agenda, we will be hearing testimony on cooling options.

I'd just like to ask briefly if there are any preliminary matters. I have spoken to counsel for each party about the time limitations. We've pretty much reduced people's desires and estimates by half, to be sure that we can finish today. That's our plan.

The model that Duke has provided, they brought to my attention some time ago, and I told them that was fine, as long as we have television coverage of it so everybody at home can see it as well. And we're going to ask people making use of the model to speak in terms that will still be understandable on the transcript. If you say "here" and "there," that's fine in front of everybody right now, but when they're later reading the transcript it means nothing. So please give references. The same goes for maps

1 and pictures that are displayed.

2 Any other preliminary matters?

3 MR. ELLISON: Yes, Mr. Fay, I do have  
4 one brief one, and this goes to Mr. Naficy's  
5 testimony on the issue for today, and it also goes  
6 to the same issue for tomorrow.

7 We have no objection to the receiving  
8 Mr. Naficy's what he calls testimony into the  
9 record, but our reading of it is that it is not  
10 expert testimony. It's in the nature of a brief  
11 or argument from counsel describing other people's  
12 testimony and evidence of that kind.

13 And so I want to be clear that I think  
14 that that's what it is, and I would object to it  
15 coming in as expert testimony. Again, I would not  
16 object to the Committee receiving it or reading it  
17 as sort of a prehearing brief, if you will, of  
18 counsel's, which is what I think it is.

19 HEARING OFFICER FAY: Okay. Anything  
20 further on that?

21 MR. NAFICY: I don't object. I wasn't  
22 planning on presenting any direct. I was going to  
23 make myself available for cross-exam, but that's  
24 fine.

25 HEARING OFFICER FAY: Okay. And as to

1 the staff's late discovery --

2 MS. HOLMES: Would you like me to go  
3 over that, Mr. Fay?

4 HEARING OFFICER FAY: Why don't you just  
5 explain it briefly for everybody, say, and then  
6 get responses from the parties.

7 MS. HOLMES: I'll just give you a little  
8 bit of a brief background.

9 When we filed the FSA, the cooling  
10 options report was, consisted largely of what we  
11 had filed in draft form in January, and then  
12 supplemented by additional analyses to reflect the  
13 fact that the FSA also included what's being  
14 referred to as a noise-mitigated design.

15 We discovered at 8:00 o'clock last night  
16 that the visual portion of that did not get into  
17 the testimony that was filed. In other words, the  
18 staff's response to the noise-mitigated design on  
19 visual resources did not get into the record. The  
20 conclusions are not changed, the additional  
21 testimony is -- I think it's two and a half or  
22 three pages, and it explains what the conclusions  
23 are and why they've been changed.

24 I've passed out copies to Duke and to  
25 the City, and as we speak I'm passing them out to

1 CAPE. And we plan to introduce that when it's  
2 time for staff to present its case.

3 HEARING OFFICER FAY: All right.  
4 Anything further, then, before we start?

5 CHAIRMAN KEESE: Mr. Fay?

6 HEARING OFFICER FAY: Yes?

7 CHAIRMAN KEESE: For those in the  
8 audience that we didn't talk to yesterday and  
9 those watching from home, I did want to expand a  
10 little bit on what Mr. Boyd and I indicated was  
11 our inability to be here on Friday. And the cause  
12 of that is the first ever preliminary meeting of  
13 all of the members of the Public Utilities  
14 Commission, all of the members of the Energy  
15 Commission, and all the members of the -- from  
16 California Power Authority, which is the funding  
17 authority.

18 So after we had set this hearing, this  
19 meeting was arranged, and it's a command  
20 performance for Mr. Boyd and I to join our  
21 colleagues in San Francisco on Friday. We had  
22 explained that to a number of the people that are  
23 here, but that is what causes us not to be able to  
24 continue this hearing on Friday. We do apologize  
25 for that, but it was authorities higher up than us

1 who decided that this was what we were going to be  
2 doing on Friday.

3 With that, Mr. Fay, I hope we can  
4 accomplish our objectives here and get all the  
5 testimony on the record.

6 HEARING OFFICER FAY: Okay, thank you.

7 Mr. Ellison, are you ready to go forward  
8 with testimony?

9 MR. ELLISON: Yes, we are. And I would  
10 call to the stand, we have a number of witnesses  
11 on the subject of our cooling options report. I  
12 call to the stand as a lead witness on this topic  
13 Mr. Andrew Trump, as well as Mr. Russ Poquette,  
14 Michael Pollack, Bob Mantey, Kirk Marckwald, Frank  
15 Ortega, Bruce Saldinger, Bob Weisenmiller, Brian  
16 Waters, Randy Hickock, Neg Rosegay.

17 I would say that Mr. Hickock is not here  
18 today. He will be here tomorrow, if there are --  
19 We believe we can answer any reasonable questions  
20 without him, but if there happens to be a question  
21 that he is the only one that can answer, he will  
22 be available for a brief examination tomorrow.

23 Same thing with Ms. Rosegay, but I don't  
24 think -- We're very confident that we can respond,  
25 I think, to anything that would fall within her --

1       Because we have such a large panel, we don't have  
2       all of them up here. Some of them are in the  
3       audience, but I would ask all of the members of  
4       the panel to, and just for the ease of this and to  
5       be clear, even if you've previously been sworn, I  
6       would ask that you be sworn again, all of the  
7       members of the panel be sworn, please.

8               HEARING OFFICER FAY: Would all of the  
9       witnesses please stand, and will the court  
10      reporter please swear them in.

11             THE REPORTER: Please raise your right  
12      hand.

13      Whereupon,

14      ANDREW TRUMP, RUSSELL POQUETTE, MICHAEL POLLACK,

15      BOB MANTEY, KIRK MARCKWALD, FRANK ORTEGA,

16      BRUCE SALDINGER, ROBERT WEISENMILLER,

17                     and BRIAN WATERS

18      Were called as witnesses herein and, after first  
19      being duly sworn, were examined and testified as  
20      follows:

21             THE REPORTER: Please proceed, counsel.

22             MR. ELLISON: And I neglected to  
23      mention, one of the support witnesses is also  
24      Dr. Huffman.

25             Okay.

## 1 DIRECT EXAMINATION

2 BY MR. ELLISON:

3 Q Mr. Trump, do you have before you the  
4 applicant's prefiled direct testimony labeled  
5 Aquatic Biological Resources, Appendix D, Duke  
6 Energy Morro Bay, LLC, in response to California  
7 Energy Commission Staff's Appendix A, Morro Bay  
8 Cooling Options report?

9 A I do.

10 MR. ELLISON: And should we give this a  
11 separate exhibit number, Mr. Fay?

12 HEARING OFFICER FAY: I didn't hear you.

13 MR. ELLISON: This is actually a part of  
14 the larger topic of marine biology, the way the  
15 testimony was prefiled, but I think it's probably  
16 appropriate to give this a separate exhibit  
17 number.

18 HEARING OFFICER FAY: I believe the next  
19 number in order is 228. That will be exhibit 228.

20 BY MR. ELLISON:

21 Q And, Mr. Trump, do you also have the  
22 applicant's rebuttal testimony with respect to the  
23 Morro Bay Power Plant Cooling Options Report?

24 A I do.

25 MR. ELLISON: Okay. With Mr. Fay's

1 permission, that would be exhibit 229?

2 HEARING OFFICER FAY: Correct.

3 BY MR. ELLISON:

4 Q Were these documents prepared by you or  
5 at your direction?

6 A They were.

7 Q In the interest of time, rather than  
8 going through everything, there's enough material  
9 here that there are quite a number of minor  
10 editorial-type corrections. And, in the interest  
11 of time, we're going to submit those in writing to  
12 the parties today that are non-substantive.

13 Are there are substantive additions,  
14 corrections, or clarifications that you would like  
15 to make to either of those exhibits, Mr. Trump?

16 A One correction would be on page four of  
17 the first document, the Appendix D, Aquatic  
18 Biological Resources document, page four, it is  
19 part of table one, Duke's Feasibility Conclusions;  
20 it is the row that is labeled Visual, and it is  
21 the third column, and it should say in the middle  
22 of that cell, "Wood graded 11-story structures 100  
23 feet, combined size of two to three football  
24 fields." So there is a number that was missed in  
25 there.



1           Q     Okay. And have the qualifications of  
2     yourself and the other members of the panel been  
3     submitted in this proceeding?

4           A     They have been.

5           Q     Okay. In the interest of time, we will  
6     not summarize the qualifications.

7                     With those corrections, are the facts  
8     contained in exhibit 228 and exhibit 229 true, to  
9     the best of your knowledge?

10          A     They are.

11          Q     And do your opinions represent the best  
12     professional judgment of yourself and the support  
13     witnesses?

14          A     They do.

15          Q     And do you adopt both of these exhibits  
16     as your sworn testimony in this proceeding?

17          A     We do.

18          Q     Okay. Mr. Trump, would you summarize  
19     the applicant's testimony in exhibit 228 and 229.

20          A     I can and will, and I'd like to use some  
21     Powerpoint slides to facilitate that, if that's  
22     acceptable to the Committee.

23                     HEARING OFFICER FAY: James, can we go  
24     off the record.

25                     (Brief recess.)

1 HEARING OFFICER FAY: We're back on the  
2 record.

3 MR. TRUMP: To members of the Committee,  
4 we have several slides to walk through to  
5 summarize the testimony. I will be presenting,  
6 Michael Pollack with Duke Energy will also  
7 present, along with Russ Poquette of Duke/Fluor  
8 Daniel and Frank Ortega from GEA.

9 What I'd like to do, I'd like to review  
10 the following topics, and all of this information  
11 I'm presenting is supporting our testimony. The  
12 agency roles and responsibilities, the important  
13 question and definition of what constitutes  
14 feasibility for various cooling options that have  
15 been analyzed, and our analysis and conclusions.

16 A key issue in this case is the  
17 interactions in the Water Board and the Energy  
18 Commission, and regarding feasibility, the  
19 Regional Board has a principal role through its  
20 determination of what best technology available is  
21 and means in this case. That is a feasibility  
22 determination under the 316(b) section of the  
23 Clean Water Act. And a key test as part of that,  
24 of the BTA determination is are the costs of the  
25 proposal alternatives wholly disproportionate to

1 the benefits.

2 Additionally, the Water Board has  
3 requested assistance from the Energy Commission at  
4 at least two different points in time, letters  
5 dated August 13th, 2001, a letter from Roger  
6 Briggs, Executive Director to the Committee, and  
7 additionally, and again, on September 17th, I  
8 believe it's September 17th or September 21st,  
9 2001, again from Roger Briggs to the Committee.

10 And, of course, the Energy Commission  
11 also has a very important role regarding  
12 feasibility under CEQA, and that's what we're here  
13 to do today, of course, is to examine all the  
14 evidence from all of the parties and come to a  
15 conclusion regarding that in due time.

16 One of the key aspects, of course, is  
17 understanding whether or not there's a need to  
18 evaluate alternatives under CEQA, and subject to  
19 tomorrow's testimony, of course, we'll evaluate  
20 the nature of the marine biological impacts. Our  
21 position is that no marine biological and CEQA  
22 impacts, in fact, will result from the modernized  
23 project.

24 But leaving that aside, the question  
25 becomes what is the definition of feasible under

1 CEQA, and has, in fact, the standard been met.

2 The CEQA guidelines regarding feasibility we  
3 believe are quite clear. Capable of being  
4 accomplished in a successful manner within a  
5 reasonable period of time, taking into account  
6 economic, environmental, legal, social, and  
7 technological factors.

8 I'd also like to just read from a  
9 letter, again it's the August 13th letter from  
10 Mr. Briggs, regarding dry cooling. We know this  
11 technology is available and proven; however, we  
12 are also aware that dry cooling systems can create  
13 site-specific noise, visual and land use impacts;  
14 therefore, we must have a site-specific CEQA  
15 analysis of the factors associated with dry  
16 cooling before we can realistically determine  
17 whether or if this alternative is feasible in  
18 Morro Bay. And I emphasize the two words  
19 "realistically determine," because I believe that  
20 is consistent with the sum and substance and  
21 intent of the CEQA guidance.

22 Furthermore, when we think about that  
23 guidance as provided in statutes, it means a whole  
24 series of very practical questions. Can the  
25 technology fit on the site? Can it be maintained

1 long term in a reasonable and safe manner? Can  
2 the site be permitted in a reasonably expeditious  
3 manner? What are the costs associated with it,  
4 those capital and ongoing costs? What are the  
5 environmental impacts associated with it? Can it  
6 be built within a reasonable schedule?

7 What about certain commercial  
8 agreements? Are they reasonably available? And  
9 can this type of equipment be located to such  
10 things as close proximity transmission lines?  
11 That's a very important safety issue, for example.  
12 So these are examples of the kinds of practical  
13 questions we believe are directly driven by the  
14 guidance in the statutes.

15 To understand whether or not this  
16 technology is feasible at Morro Bay, it's  
17 imperative that one understand the constraints  
18 that operate on this site. And this is a map  
19 that's in our testimony, it's attachment four, I  
20 believe, page 79, there is a series of six sheets.  
21 Let me just point out a couple of aspects of this  
22 map.

23 Here is the existing property line in  
24 the dashed line. We have the existing power plant  
25 in this location. We have a second arrow floating

1 around.

2 (Laughter.)

3 MR. TRUMP: It's a little video game.

4 We have the existing PG&E property, the  
5 switch yard property, of course, here is the  
6 existing on-site tank farm. This is the area, of  
7 course, where we're proposing to build the  
8 modernized power plant, and, of course, this  
9 property has a number of other geographic  
10 features.

11 This shows some of those features in  
12 color. We have the Morro Creek riparian corridor,  
13 Willow Camp Creek. We've talked at length I think  
14 yesterday in terrestrial biology about those  
15 issues. We see here the transmission corridor in  
16 blue between the PG&E switch yard and the existing  
17 plant area here. This is a resource area that's  
18 off limits in the south of the property, so you  
19 can see some of the important areas that delineate  
20 what is left over on this property. And we have  
21 shown that, in fact, in this grey shading, the two  
22 areas we're meeting for power plant construction  
23 purposes.

24 Here we've taken the same slide and  
25 we've overlaid on top of that the proposed power

1 blocks, the two 2-by-1 combined-cycle power plant,  
2 and we have also overlaid on this in this cross-  
3 hatching here the dry cooling, our condenser in a  
4 southerly portion of this open area.

5 What I'd like to do is I'd like to  
6 introduce the four different options that were  
7 evaluated by the Energy Commission as well as by  
8 Duke Energy. I've simply used the existing map.  
9 What we've done here is just included, kind of as  
10 an overlay, a key to help understand the four  
11 different options that have been evaluated.

12 So we have the dry cooling evaluated in  
13 two different locations, alternative site one and  
14 site two. We have the hybrid cooling evaluated in  
15 two different locations as well. So what we've  
16 done here is, just in a representational fashion,  
17 shown this dry cooling alternative one.

18 Again, in the same location we have the  
19 hybrid cooling alternative one site. Here we have  
20 the dry cooling alternative two location, which I  
21 refer to as the ESHA location. And then finally,  
22 the hybrid cooling alternative site two, again in  
23 the ESHA area.

24 So for each of those four options, Duke  
25 Energy also evaluated four, those same four

1 options as well. In addition, the FSA also looks  
2 at other systems. It looks at salt water  
3 mechanical draft cooling, and, in fact, concludes  
4 that that's not under consideration. In FSA,  
5 Appendix A, page 23, the FSA states, "Ocean water  
6 for use in wet cooling system was not pursued, due  
7 to the desire to minimize impacts on marine  
8 aquatic organisms and because of the concern about  
9 air emissions from cooling tower drip."

10 Our own 316(b) analysis on page 6.6  
11 states that there would be approximately 500  
12 pounds per day of salt water drip particulate.  
13 Also, we'll emphasize that in this particular  
14 instance, this is a fatal flaw to salt water  
15 mechanical draft cooling. There are no emission  
16 reduction credits available in this particular  
17 area of the state that would allow us to build a  
18 project that would increase particulate formation  
19 by that number of pounds per day, and certainly on  
20 an annual basis it would be quite large.

21 Other options were also considered by  
22 the Energy Commission staff. Regarding wet  
23 cooling, "Wet cooling is not analyzed" -- Again,  
24 this is from the FSA, Appendix A, page nine --  
25 "Wet cooling is not analyzed as a cooling option



1 for the Morro Bay power plant because there is not  
2 a sufficient supply of reclaimed or fresh water in  
3 the Morro Bay area."

4 So the first observation is that this  
5 forced consideration of hybrid options. Regarding  
6 the hybrid options, again there are restrictions  
7 on the amount of reclaimed water that would be  
8 available. Again, referring to Appendix A of the  
9 FSA, due to the limited volume of makeup water in  
10 the Morro Bay area from the water treatment plant,  
11 this alternative was not evaluated. They also  
12 had, I don't want to restate the FSA, it also  
13 mentioned plume formation as another reason why it  
14 wasn't evaluated. So this further constrains the  
15 hybrid options.

16 So one of the key points here is that we  
17 have now looked at four of the staff-proposed  
18 options. We've looked at those options as well.  
19 There are differences in the configuration and the  
20 design basis that was proposed. So we've looked  
21 at eight different options. What we want to think  
22 about is we've looked at two different sites,  
23 we've looked at two different technologies. We've  
24 looked at different sizing of each of those  
25 options. We've also looked at salt water

1 mechanical draft cooling. We've looked at fresh  
2 water pure wet cooling. We've looked at a variety  
3 of hybrid options.

4 So, in effect, over the last two years,  
5 there has been an extensive evaluation of the  
6 various different options that might be feasible  
7 here at Morro Bay.

8 Our overall conclusions regarding the  
9 feasibility of closed-cycle cooling at Morro Bay  
10 is that they're fundamentally flawed, looking at  
11 this from the perspective of legal issues as well  
12 as technical issues, and we'll talk more about  
13 these things in a bit.

14 First off, the City does not support the  
15 project with alternative cooling. Why is this  
16 important? Well, we need certain easements and  
17 certain property transactions to occur to  
18 facilitate the construction of the project.  
19 Regarding some of the options, there is also the  
20 need to get reclaimed water from the City of Morro  
21 Bay treatment facility.

22 The Energy Commission, while it has  
23 override authorities regarding environmental  
24 permitting, it has no eminent domain authority  
25 that we know of, and neither do we. So without

1       agreements from the various entities, like the  
2       City of Morro Bay, we simply can't build this  
3       project with, assuming reliability upon agreements  
4       we don't have in place.

5               The fundamental zoning of the project is  
6       in conflict with alternative or closed-cycle  
7       cooling. This would require an override of the  
8       Energy Commission or some other kinds of changes,  
9       which we don't believe are even feasible.

10              There are also issues of, distinct from  
11      the zoning, there is compliance with numerous  
12      LORS: visual impacts, there are terrestrial  
13      biological-related LORS, numerous, numerous LORS,  
14      all of which, separate from the zoning issue,  
15      would require a separate override from the Energy  
16      Commission. So I want to distinguish from the  
17      LORS compliance and the fundamental zoning.

18              There are significant cultural resource  
19      issues which concern -- certainly, there are  
20      significant terrestrial biological resource issues  
21      which we'll get into.

22              From a technical perspective, the  
23      constructability is a huge question mark. We  
24      provided cost estimates that try to estimate  
25      conservatively what it is we know today. There

1 are numerous things we do know beyond this, so the  
2 constructability issues are significant, the cost  
3 issues are overwhelming. We don't know even know,  
4 for example, around long-term maintenance, how we  
5 could even be able to get a crane into the  
6 facility in a reasonable way to provide long-term  
7 maintenance to the facility.

8 Today you may hear about some key  
9 differences between the staff's FSA and Duke's  
10 analysis, so I wanted to talk briefly about that.  
11 The staff FSA indicates that there is a  
12 significant distinction being made between the  
13 size of our proposed dry-cooled system or hybrid,  
14 and what we proposed. And that this is a  
15 determining issue somehow in the feasibility  
16 determination.

17 And the second significant theme in the  
18 FSA is that, through a process of optimization  
19 somehow, we could resolve these differences, and  
20 that occurs on numerous, numerous occasions. I'll  
21 read just one quote from the FSA, page 16, staff  
22 rebuttal testimony, "Staff asserts that the use of  
23 the ESHA" -- This has to do with alternative two  
24 options -- "can be refined by shifting of the  
25 facility location, relocate it to a more suitable

1 location, or avoid altogether." So there is a  
2 discussion about this optimization issue which  
3 would resolve issues.

4 We fundamentally disagree. This is not  
5 an issue about size, this is not an issue about  
6 optimization. Our analysis remains very clear  
7 about the infeasibility, even if we accepted the  
8 smaller condenser and design basis of the Energy  
9 Commission's analysis, the five-by-five array, and  
10 that's a very, very important point in this  
11 proceeding.

12 Our conclusions are not driven by  
13 whether or not you accept the five-by-five array  
14 sizing, or the more appropriate size, eight-by-  
15 five configuration. That's just a fundamental  
16 misconception between the FSA and our conclusions.

17 Secondly, these issues can't be solved  
18 by optimization. As I mentioned, we've been at  
19 this for two years. We've looked at a variety of  
20 different options. We can show, for each of the  
21 options that have been considered, there are fatal  
22 flaws to those. And moreover, it's not simply a  
23 question of going back and fine-tuning. In fact,  
24 the more that we fine-tune, the more that, in  
25 fact, is it supported in the record and in

1 documents that are in the record, the more that we  
2 fine-tune, the more that we learn about this site,  
3 the more expensive it gets, the more complex it  
4 gets, and the less we know about our fundamental  
5 ability to even consider it.

6 Finally, however, I do want to point out  
7 an important aspect of this size issue. I don't  
8 want to dismiss this. Having said it doesn't  
9 matter to the fundamental conclusions, I also  
10 don't want to dismiss it. It's very important  
11 that the Energy Commission Committee wrestles and  
12 thinks about what this issue around size is all  
13 about.

14 First of all, there is a question, the  
15 five-by-five consideration is undersized to meet  
16 the needs of the project. Why is that important?  
17 It's important because this means that there is  
18 additional electricity generation capacity that's  
19 not available to the state. And it also means  
20 that there is less revenue that's available.

21 And while we might say that's simply a  
22 question of a large corporation not wanting  
23 additional revenue, when you look at these  
24 tremendous costs, it even makes the project all  
25 the more economically challenged, when you take

1 additional costs and, in addition to that, you  
2 further restrict the revenue opportunities. So it  
3 is an important issue, but it doesn't  
4 fundamentally change our feasibility conclusions.

5 I'd like to talk briefly about the four  
6 different options that have been analyzed. I'd  
7 like to spend a little bit less time, if you  
8 would, about some of what we believe to be the  
9 fatal flaws of the alternative two location, and  
10 then also hybrid cooling, and focus a little bit  
11 more on the dry cooling, alternative one. Because  
12 I guess if anything were plausible to me, that  
13 would be the more plausible of the scenarios. So  
14 let me very quickly talk a little bit about the  
15 flaws in alternative two, the hybrid.

16 First off, there is a land use  
17 consideration, alternative two. The FSA states  
18 very clearly that use of the ESHA for this purpose  
19 would be inconsistent with city LORS. Very, very  
20 clear.

21 There are cultural resources issues. I  
22 do not want to get into detail about this. There  
23 is a confidential filing about this. We ask  
24 whoever the Committee is paying very close  
25 attention to the importance of the cultural

1 resources issues.

2 Noise is another issue on compliance, on  
3 the ESHA issue I think it's important to recognize  
4 something that is very, very perplexing to us.

5 These are huge structures. This particular  
6 configuration, alternative two, recommends putting  
7 these massive structures the size of spaceships  
8 into the ESHA. And yesterday we had hours of  
9 testimony about impacts, down to the 1/100th of an  
10 acre of precision.

11 And then here we have a proposal to put  
12 these massive structures into a riparian corridor.  
13 And then the presumption by the FSA is that these  
14 can be mitigated, or, if not mitigated, they can  
15 be overridden by the Energy Commission because the  
16 LORS issues, if not that, they'd simply move to  
17 reoptimize. And we find this to be a torturous  
18 cycle of logic in the FSA around the alternative  
19 two site.

20 Visual impacts, this really applies to  
21 all of the different options but I thought I would  
22 highlight it here. We do not believe that the  
23 visual impacts can be mitigated. The alternative  
24 two site has an additional visual impact  
25 associated with a very, very large routing of



1 steam pipe duct from the steam turbine across this  
2 creek. The height of these two steam ducts --  
3 These steam ducts are approximately I think 19  
4 feet in diameter each, and there would be two of  
5 them. I believe the total height of the steam  
6 pipe run would be on the order of approximately 60  
7 feet, I believe.

8           Regarding the steam duct run, I wanted  
9 to point out a technological issue. The steam  
10 duct run would be at a minimum of 350 feet from  
11 the steam turbine. Now, why is that important?  
12 Well, why that is important is, at least from  
13 GEA's experience, and it's in our testimony, they  
14 know of no power plant that they have supported  
15 with their cooled system that has a pipe run that  
16 is more than 250 feet.

17           So this is a technological issue, where  
18 the steam pipe run is, in fact, longer than  
19 anything they've seen in practical practice. Why  
20 is that important? Because if you don't have a  
21 sufficient space in between the steam turbine and  
22 the condenser, you have significant performance  
23 degradations which cannot be made up, which are  
24 not accounted for in the FSA at all. So we  
25 consider this a practical fundamental question of

1 feasibility.

2 Here is a map which is in our testimony.

3 It shows the ESHA area that is under  
4 consideration, and this is in the riparian  
5 corridor. This shows you the variety of  
6 different -- first of all, the complexity of it.  
7 We have the ESHA area itself, we have buffers that  
8 would be required. And it shows you the overall  
9 footprint as well of what, in fact, would be  
10 impacted.

11 We do not believe that will you be able  
12 to do an override, will you be able to place these  
13 in -- oh, there is also a flood plain issue as  
14 well that's substantial here. But we certainly  
15 don't believe you can even mitigate that type of  
16 significant impact.

17 I'm going to turn very quickly now to  
18 the hybrid cooling options. Again, I'm going to  
19 go to high level, but one of the fundamental  
20 issues in the hybrid cooling is the amount of  
21 fresh water that would be needed to support the,  
22 to the hybrid cooling system. You would need to  
23 make an upgrade to the water treatment facility,  
24 but leaving that aside, you actually wouldn't have  
25 enough -- You still need backup water. You always

1       need a secure source of water.

2               There's approximately two million  
3       gallons a day coming out of the waste treatment  
4       facility. That would have to be treated. But  
5       where is your backup? What if that's not  
6       available in a given time? So you can't rely upon  
7       it.

8               Now, there's argument in the FSA about  
9       why that's not important, but certainly the  
10      impacts of that have not even been assessed. More  
11      importantly is the City is on record indicating  
12      they are not interested in supplying us with  
13      wastewater, they're not interested in having us  
14      build a wastewater treatment facility upgrade at  
15      their facility. There would also be at least two  
16      miles of round-trip piping that would have to go  
17      between this facility and the power plant, and  
18      that would, of course, introduce potential  
19      impacts. It would also potentially tear up city  
20      streets or city parks, all of which has not been  
21      factored in to the analysis.

22              Noise: Both Duke and the FSA are clear  
23      that the noise element would be exceeded on the  
24      hybrid cooling options. Visual resources: Again,  
25      we do not believe any of these options can be

1 appropriately mitigated on visual resources. Of  
2 course, factored into all of this is what I  
3 mentioned earlier about city approvals not being  
4 available for any of these options.

5 I'm going to turn now to talking a  
6 little bit about that first quadrant, dry cooling  
7 alternative one, get into that in a little bit  
8 more detail. Some of these issues also impact  
9 both dry cooling alternative one and alternative  
10 two; for example, the schedule issue. But let's  
11 focus in a little bit on this dry cooling  
12 alternative one.

13 First off, there would be a scheduling  
14 impact for the construction of this option of  
15 anywhere from 14 to 18 months, based upon what we  
16 know today, not accounting for a lot of things we  
17 don't know. The fundamental issue I'm driving at  
18 will be explored a little bit more carefully in a  
19 couple of minutes, but it has to do with the fact  
20 that we cannot, we do not know how to build the  
21 power plant island, the power island at the same  
22 time that you build the condensers.

23 The air cooling condensers do not fit on  
24 the site. The eight-by-five array will not fit on  
25 the site. Moreover, the staff indicates that they

1 believe a seven-by-five would fit on the site, but  
2 it is fundamentally not true. The seven-by-five  
3 array would actually be larger than the eight-by-  
4 five, not to get into complications, but it too  
5 would not fit on the site.

6 And there are questions about the five-  
7 by-five array. This would also violate local  
8 zoning. This would require some fix to this. We  
9 don't believe that the conditions for an Energy  
10 Commission override in this case can be met.  
11 There is at least questionable noise compliance,  
12 and why I say questionable, it's right at the  
13 ragged edge. It's right at the edge. It is a  
14 level of -- It is right at the edge in such a way  
15 that we have no assurance that we can meet the  
16 noise standards.

17 And there are very few options at that  
18 point to further soften the noise issue, if you go  
19 and build an \$800 million plant, and it doesn't  
20 quite work. What are you supposed to do at that  
21 point?

22 These 11-story structures would result  
23 in unmitigatable visual impacts. We discussed  
24 that briefly before. The capital costs would be,  
25 up front, approximately \$200 million of what we

1 know today, probably more as we learn more about  
2 it.

3 There are unknown flood risks. We are  
4 now building outside the bermed areas, so now we  
5 have an unknown flood issue, certainly a  
6 permitting issue would be very -- a long time to  
7 resolve. But that would actually be a practical  
8 constructability issue, an unknown  
9 constructability risk.

10 This is a slide in our testimony  
11 regarding the Moapa facility. I wanted to point  
12 out a couple of things about this. Moapa is a  
13 facility in Nevada which Duke Energy is building.  
14 This power plant is equivalent size of the Morro  
15 Bay facility. These condensers are larger because  
16 the ambient conditions are different in that part  
17 of the country, of course, it's hotter. You'll  
18 see here, though, that the power blocks are being  
19 built behind the condensing structure that's out  
20 front here. You see some of the darker masses  
21 behind the air-cooled condensers.

22 This is an indication that we're  
23 building, in fact, which is common practice,  
24 building the condensers at the same time as the  
25 power island behind it.

1               Secondly, I wanted to share the slide  
2       because I want to point out, we have no inherent  
3       bias against dry cooling. We're building a plant  
4       with dry cooling. It works, it's appropriate in  
5       certain locations. Moreover, another point I  
6       wanted to make is we have experience building dry-  
7       cooled plants; direct, relevant experience now  
8       which is reflected in the credibility of our  
9       testimony.

10              Another issue I wanted to point out is  
11       that just from a matter of perspective, at the  
12       Moapa facility, we have 100 acres of property  
13       inside the fence. The facility that is being  
14       proposed here for dry cooling has approximately 20  
15       acres. It's a fundamental issue that drives  
16       approximately at least \$110 million of the total  
17       capital cost that is in our testimony: the costs  
18       associated with schedule delay, the costs  
19       associated with a variety of different site  
20       constraints.

21              You can see in this slide some of the  
22       laydown activities that are going on around the  
23       condensers, the space needed for crane setup and  
24       what-not. Mr. Pollack will talk a little bit more  
25       about that in a moment.

1           And we will talk very briefly about  
2       visual impacts, noise impacts, land use. On the  
3       visual impacts, we agree with staff that the  
4       proposed project with once-through cooling is  
5       preferred over dry cooling, alternative one and  
6       two. We agree that the visual impacts are  
7       significant and adverse.

8           We fundamentally disagree, however, that  
9       these impacts can be solved by the proposed  
10      conditions of Vis I, Vis 2, and Vis 3, dealing  
11      with such things as paint schemes and vegetation.  
12      We don't understand how you can possibly mitigate  
13      these huge structures with the planting of  
14      landscaping material.

15          I wanted to go through a short sequence  
16      of the KOPs that are in our testimony. This shows  
17      the proposed project with the once-through cooling  
18      system. This next slide is Duke's proposed dry-  
19      cooled system, the eight-by-five array. This, of  
20      course, is the alternative one configuration with  
21      the condensers located in the southerly portion  
22      south of the power blocks.

23          The next slide shows the project with  
24      the Energy Commission staff's proposed five-by-  
25      five air condensers added to give you a



1 perspective of the difference between the eight-  
2 by-five arrangement and the five-by-five. There  
3 is one important correction here, however; the  
4 Energy Commission staff's analysis shows a five-  
5 by-five side by side.

6           You will notice that we have put a space  
7 between the different condenser blocks because you  
8 have to, and that will be explored briefly by Mr.  
9 Pollack in a couple of minutes. But you have to  
10 in this case. You cannot put those side by side  
11 without other things going on. It may be, in  
12 fact, totally impossible.

13           Land use impacts are significant.  
14 Again, we've talked about this a little bit, but  
15 basic zoning is violated. We don't believe that  
16 the proposed solution to this by the FSA that the  
17 Coastal Commission could, in fact, reinterpret  
18 zoning in such a way to make a finding of  
19 consistency. We do not believe that's feasible or  
20 legally correct.

21           Secondly, the Energy Commission override  
22 requirements we believe cannot be met in this  
23 case, and that's supported in our testimony. The  
24 alternative cooling would violate local LORS,  
25 again distinct from the basic zoning. And again,

1 we don't believe that those override requirements  
2 could be met in this case as well. And, of  
3 course, all this is against the backdrop that the  
4 proposed project, in fact, is consistent with all  
5 local LORS.

6 Well, noise issues, I'm going to be real  
7 clear. Hybrid options, both the FSA and Duke  
8 agree that it cannot meet the noise element. And  
9 that is the mitigated noise design. For the dry  
10 cooling options, it's right at that ragged edge,  
11 and we believe that is -- First of all, those  
12 numbers are not provided through any sort of  
13 commercial entity, this is simply high order  
14 estimates.

15 Our experience has been when we're  
16 dealing with those sorts of things, there's always  
17 a safety margin that comes back in the analysis  
18 that's not reflected in these numbers. So we have  
19 no confidence, in fact, that this is a system that  
20 can meet the noise element. And I would not be  
21 able to recommend to management that we could  
22 build this project and meet the noise requirements  
23 as well.

24 On constructability issues, I just want  
25 to touch on things, very high level, and then turn

1       it over to Michael Pollack. The site is  
2       congested, regardless of whether the five-by-five  
3       array is considered or the eight-by-five. It's  
4       fundamentally a small, tight site. Well, why is  
5       that? Well, one of the considerations is we're  
6       trying to keep the existing power plant running  
7       while we actually build the modernized facility.

8               This drives 14 to 18 months of schedule  
9       delay, and again, this is based on what we know  
10      today. This is conservative. There are numerous  
11      things that we don't know about which would  
12      further impact the schedule.

13             This drives cost. There would be at  
14      least \$80 million of additional costs associated  
15      with interest during construction because of the  
16      schedule delay. There would be at least an  
17      additional ten million of overheads because of the  
18      lengthened construction program. There would be  
19      at least \$20 million of things we know today of  
20      site congestion costs. And those are a variety of  
21      things that Mr. Pollack will describe that have to  
22      do with the relocation of ancillary systems  
23      necessary for the existing power plant, for  
24      example, while you're trying to build the new  
25      modernized facility.

1           And it's unclear if these things could  
2       even be resolved. So while we've provided  
3       estimates about things we know, we haven't solved  
4       all the problems, we don't know if we even can  
5       solve them. All of this makes the cost, and these  
6       commercial uncertainties make this project with  
7       alternative closed-cycle cooling infeasible.

8           I'm now going to turn it over to  
9       Mr. Pollack to talk about the model.

10           MR. POLLACK: My name is Michael  
11       Pollack. I'm the project director for the  
12       construction phase of this particular project. I  
13       have over 25 years of experience in the power  
14       generation industry. I've built a number of  
15       facilities similar to this. I've built cold-fired  
16       power generation plants, nuclear generation  
17       facilities, and both simple-cycle and combined-  
18       cycle facilities.

19           I'm assisted today by Mr. Russ Poquette.  
20       He is the project director for Duke Fluor/Daniel.

21           Russ, could you kind of brief us on what  
22       your qualifications are.

23           MR. POQUETTE: I actually have 25 years  
24       experience in the engineering, design,  
25       construction contracting business. I have built

1       predominantly refinery hydrochemical power  
2       complexes, both internationally and domestically  
3       of this magnitude or significantly larger.

4               MR. POLLACK:   Between Russ and myself,  
5       we have over 50 years of relevant construction  
6       experience.  Our job responsibilities require that  
7       we evaluate detailed constructability issues  
8       associated with this project.  We do not have the  
9       luxury of doing a conceptual overview analysis of  
10      the issues associated with constructability.  When  
11      we identify these issues, we can't just assume  
12      that those issues can be resolved.  We have to  
13      look at construction sequence and the impacts of  
14      those issues.

15             Both Russ and I are going to be  
16      responsible for the construction of this facility.  
17      If we were to move forward with this facility, I  
18      would be asking Russ to guarantee to us a  
19      guaranteed schedule, a fixed price, guaranteed  
20      performance, and a commitment to meet all of the  
21      permitting limitations that will be identified in  
22      the permit.  And I will ask him to step up to the  
23      table and guarantee that in the form of liquidated  
24      damages.

25             My management in Houston has already

1       asked me whether I believe we can construct this  
2       project with air-cooled condensers. The objective  
3       of this presentation, and at the end of this  
4       presentation you'll understand how I answered that  
5       question, and more importantly, you'll understand  
6       why I answered it the way I did, and the reasons  
7       why I answered the question the way I did.

8               What we have here and what we're going  
9       to use as this model, the reason we're utilizing a  
10      model is we're going to describe in a very short  
11      15-to-20-minute presentation the constructability  
12      issues that both Russ and I have been dealing with  
13      over the past five to six months, and try to  
14      convey those constructability concerns to staff as  
15      well as yourself and the other participants in the  
16      audience.

17             As I mentioned, the model is to scale.  
18      The scale is one inch equal to ten feet. We've  
19      identified a grid system along the model, and we  
20      will try as I go through this presentation to  
21      refer to the grid system, but we also have  
22      overviews and photographs of this model which will  
23      be provided as part of our record.

24             As I said, we do have a model that is to  
25      scale. We've got several people in the model.

1 Those people are six feet tall, at least the men  
2 are.

3 I think we've got a few women, don't we,  
4 Russ?

5 MR. POQUETTE: Absolutely.

6 MR. POLLACK: Yes, and I think they're a  
7 little bit smaller. We have 145-foot HRSG stacks.  
8 We have 90-foot HRSGs. We've got 60-foot turbine  
9 buildings. And we also have construction cranes.

10 Russ, can you address where we got the  
11 information on the construction cranes, please.

12 MR. POQUETTE: The cranes that you see  
13 here, in particular these two large ones near the  
14 HRSG and near the electrical switch building,  
15 actually came from the Moapa site, and they're all  
16 from scale drawings. These are the two cranes you  
17 saw in that one picture that Mr. Trump showed  
18 regarding the ACCs. And so these are actually the  
19 ones being used and we would be required to erect  
20 any ACCs here in Morro Bay.

21 The other crane that you see here is a  
22 300-ton crane. That's one that would be required  
23 during construction for the turbines due to the  
24 weight and the reach. And it would be the type of  
25 crane required for maintenance long term for the

1 plant.

2 MR. POLLACK: I want to point out a  
3 couple of issues relative to the model, the first  
4 of which is, is you'll see that there is only two  
5 HRSGs and the associated combustion turbines.  
6 There is another set of HRSGs on the north side of  
7 these, which would be located approximately there.  
8 We did not include those on the model, because the  
9 model was getting prohibitively large, and  
10 furthermore, they fundamentally don't add to the  
11 validity of the constructability issue that we're  
12 trying to address today.

13 Similarly, there are enclosures over the  
14 combustion turbines. Those enclosures also were  
15 not added onto the model again, because they  
16 fundamentally didn't address or add anything to  
17 the constructability issue. It is important to  
18 note, however, that we do have enclosures over the  
19 steam turbines located between column lines D and  
20 F, and approximately 20, 23 and, what have we got,  
21 about 12 and 15.

22 The reason I wanted to point those out  
23 is those steam turbine structures have roofs on  
24 them which are removable. Those roofs have to be  
25 removed to effectively maintain the rotating



1 equipment inside those buildings. That's an  
2 integral part of the design of this project, and  
3 the site has to have sufficient room to provide  
4 laydown for the roofs, not only on the steam  
5 turbine structures, but also on the four  
6 combustion turbine structures that would be  
7 located there.

8 Now, before I go any farther, let me  
9 orient you a little bit about where we are. There  
10 is a key map here. We do have -- This is the area  
11 fundamentally inside the tank farm. As Mr. Trump  
12 mentioned, it is approximately 20 acres. I  
13 believe Andy also mentioned that the comparable  
14 size facility at Moapa, which we're currently  
15 under construction on, same size, 1200 megawatts,  
16 they have 100 acres inside the fence. We have  
17 approximately 20.

18 The existing plant, the existing Morro  
19 Bay plant is south of us, approximately where I am  
20 standing. The stacks are in that area. There are  
21 a couple of other critical things I wanted to  
22 point out and get you oriented with this, this  
23 dark, dashed line that you will also see on the  
24 map up there is the PG&E property line. Inside  
25 the PG&E property line is PG&E's high-voltage

1 switch yard. You'll also see that up on the  
2 screen.

3 This is particularly important, because  
4 as you see, as we go through this construction  
5 sequence, we're going to be building the air-  
6 cooled condensers in this area, between column  
7 rows J and P, and 10 and 25. And when we do that,  
8 we're going to be very, very close to the PG&E  
9 switch yard. We have, as well as our construction  
10 contractor has very, very strong concerns relative  
11 to safety and liability issues in the event that  
12 there were a potential accident which could take  
13 out that switch yard.

14 There are also berms. The berm that's  
15 located here is located on the west side of the  
16 project. You've seen it before in our prior  
17 photos. It basically runs along column lines ten  
18 through eight, from one end of the project, from  
19 the south end of the project to the north end of  
20 the project.

21 There are also transmission corridors.  
22 Transmission corridors come off of generator step-  
23 up transformers. The one shown here is between  
24 column row F, and -- well, G and F, and 11 and 12.  
25 They go west from there, they turn directly north,

1       come down into this area, come directly -- Let's  
2       see, that would be east across the site, and meet  
3       up with the transmission corridor from the  
4       generator step-up transformers on this side of the  
5       project, from this HRSG on the east side and the  
6       steam turbines on the east side.

7               They then travel south again, and then  
8       cut across in front of the PG&E switch yard to  
9       connect in to the PG&E switch yard. That's  
10      particularly important as we get into the air-  
11      cooled condenser description.

12             Last but not least, there is a  
13      construction road. The construction access road  
14      starts at the back gate of the PG&E property, and  
15      then comes in along Willow Camp Creek, comes into  
16      the property directly adjacent to the PG&E switch  
17      yard, and then on into the main part of the tank  
18      farm area.

19             I wanted to point out that the model is  
20      currently set up to represent Duke's 1200-megawatt  
21      proposed facility, utilizing once-through cooling.  
22      We have the basic power block, which would be the  
23      same for all configurations. It's located  
24      fundamentally between column rows 10 and 24 and B  
25      and G. That's basically the power block. That

1 includes the steam turbines, the HRSGs, the  
2 combustion turbines, and the large generator step-  
3 up transformers and auxiliary transformers.

4 We also have the existing facilities  
5 which are represented here on the south side of  
6 the plant. That includes the firewater storage  
7 tank located from Q to S, the firewater pump house  
8 from S to U, the peregrin building from R to U,  
9 and the existing oil/water separator here between  
10 T and V. Those are existing facilities that are  
11 essential for the continued operation of the units  
12 one through four.

13 Lastly, we have the ancillary equipment  
14 area out in front here. It includes the closed-  
15 cycle cooling water and chemical injection  
16 equipment. We have the water storage tank, the  
17 distilled water tank, the evaporator, the  
18 administration and control building, the warehouse  
19 building. That area is basically bounded by the  
20 column rows H to O, and from approximately 23 to  
21 12.

22 Now, this project, as represented here,  
23 has a considerable amount of construction laydown  
24 and staging right here in front of the main power  
25 block. These facilities here -- the warehouse

1 building, admin control building, the distilled  
2 water tank, the seawater evaporator -- those  
3 facilities will not be constructed until well into  
4 the construction process. So all of this area  
5 will be opened.

6 All of the equipment will come in the  
7 back gate, down the road, and pull into this area,  
8 unload, and all the equipment will be staged in  
9 this area as we build the power block. That's the  
10 first thing we will be doing. About halfway  
11 through that process, we will start on the  
12 ancillary facilities -- the control building, the  
13 warehouse building, and these other facilities.

14 In summary, we can build this project in  
15 21 months. We know that. We built a similar  
16 facility, almost an exact duplicate of this  
17 facility at the Moss Landing project, same  
18 fundamental arrangement, and we'll be able to  
19 build this facility in a comparable time, and we  
20 can do it in 21 months.

21 Now, to convert this facility into one  
22 that utilizes air-cooled condensers, they're going  
23 to require an additional 14 to 18 months. And to  
24 demonstrate that, we're going to use staff's  
25 noise-mitigated base case. That's their smaller

1 five-by-five array. However, before we actually  
2 build that, I wanted to explain to you the  
3 execution plan that we have to go through, and  
4 this is critically important, that we understand  
5 the execution plan associated with building this  
6 project.

7 The first thing you have to do is you  
8 have to build the power block. That's that area,  
9 again, including all four HRSGs, all four  
10 combustion turbines, the steam turbines, and the  
11 associated generator step-up transformers and NOx  
12 transformers. That has to be done first. The  
13 reason is, that as you'll see, as we'll add the  
14 air-cooled condensers onto this model, you will  
15 not be able to get the large cranes and the large  
16 equipment back into that area with this area  
17 constrained. That part has to be done first,  
18 before you can build the air-cooled condensers.

19 The lifts associated with that equipment  
20 over there exceed 550- to 600,000 pounds. You  
21 need two very large cranes to be able to make  
22 those lifts. You need very large equipment to be  
23 able to move those pieces into place so that they  
24 can be ready to be lifted.

25 Now, after we have completed the power

1 block, the very next thing we need to do is we  
2 need to clear out the existing facilities here  
3 that are already here. That would be the  
4 firewater storage tank, the firewater pump house,  
5 the peregrin building, and the oil and water  
6 separator. We can't just discard those things  
7 indiscriminately. All of those components are  
8 required for the existing operation of units one  
9 through four. So they need to be temporarily  
10 relocated.

11 Now, we haven't figured out exactly  
12 where we would be relocating them. We're looking  
13 at a couple of options, we think we can find a  
14 spot for them, but they will have to temporarily  
15 be relocated.

16 The next thing we need to do is we need  
17 to move the large cranes out of that building, out  
18 of that area. Because we are going to be getting  
19 ready to install and start the construction  
20 sequence for the air-cooled condensers. So we  
21 need to get our large cranes out of that area,  
22 because we've essentially completed most of the  
23 large lifts, at any rate, associated with  
24 constructing the power block.

25 Now, I want you to note the yellow

1 cross-hatched area here in the middle of the  
2 model. It is bounded by column rows H through R,  
3 and about 9 through 25. That cross-hatched area  
4 is the absolute minimum requirement for staging  
5 that GEA has identified as absolutely necessary.  
6 As a matter of fact, they've actually asked for  
7 about five acres more than that, but that's just  
8 not possible. We just don't have that much space.  
9 There's just no room for it.

10 That additional four to five acres is  
11 going to have to be moved to our offsite laydown  
12 area. The amount of area that they're going to be  
13 limited to is what's shown here in the cross-  
14 hatchings, and that's the minimum area that they  
15 will need.

16 Now, the next thing that we need to do  
17 is actually build the air-cooled condensers. Now,  
18 again, the air-cooled condensers that we're going  
19 to be utilizing at this point in time are staff's  
20 noise-mitigated base case. It's a five-by-five  
21 array. And those will be installed next. It  
22 takes approximately 12 to 14 months to build these  
23 structures. That information is consistent with  
24 the information we received from GEA and our  
25 construction staff at Moapa. And they had



1 considerably more room than we have to construct  
2 these things.

3 The opening: You'll note that what  
4 we've got here is a couple of different visual  
5 representations of the air-cooled condensers, one  
6 of which has the opening in here. That opening  
7 will essentially be filled up to some degree with  
8 cross-hatched steel, a steel structure similar to  
9 what we have drawn on this other air-cooled  
10 condenser. But they will both be open down below,  
11 down from the fan deck on down, but it will be  
12 filled up with steel. For purposes of this  
13 presentation, we didn't elect to put that level of  
14 detail in it.

15 I want you to note that now that we've  
16 got these in here, it's extremely important that  
17 you recognize that the construction access road is  
18 now blocked. There is no way to get through here.  
19 That's the construction access road to get in to  
20 our staging area. You'll also note that the  
21 transmission corridor is blocked. There is no way  
22 to get transmission lines over this air-cooled  
23 condenser and into the PG&E switch yard. Those  
24 lines are going to have to be moved underground.

25 The next thing we need to do is we need

1 to build the pipe rack, which Mr. Poquette is  
2 getting ready to move into the model now. This is  
3 the pipe rack that's sized for the steam ducts  
4 associated with the air-cooled condensers. And of  
5 critical importance is the electrical equipment  
6 room.

7 Russ, can you show us the electrical  
8 equipment room.

9 That building is particularly critical,  
10 and the reason why is that building contains all  
11 of the high-voltage and intermediate-voltage  
12 switch gear. That equipment in that building  
13 controls almost every single motor or feeds almost  
14 every single motor on this project. Every cable  
15 that powers those motors goes through that  
16 building. There are literally thousands of cables  
17 that go into that building.

18 The fact that we have to hold that  
19 building out until we're constructing these things  
20 and have them finished to a significant degree  
21 forces us to hold out pulling all of that cable,  
22 making all of those terminations, and ringing out  
23 all of those circuits until we've fundamentally  
24 completed these air-cooled condensers.

25 Now, the final stage of the process.

1 Now that we've got the air-cooled condensers, we  
2 are now in a position where we can now build what  
3 we call the ancillary facilities, which include  
4 the control room, the closed-cycle cooling water  
5 equipment --

6 MR. POQUETTE: Slow down or you'll get a  
7 change order.

8 (Laughter.)

9 MR. POLLACK: A typical contractor. I'm  
10 trying to accelerate him.

11 To facilitate, because of the location  
12 of the air-cooled condensers, we're having to move  
13 those ancillary facilities farther away from the  
14 equipment which they are serving, which is  
15 basically the power block. That includes the  
16 warehouse building, the admin control building;  
17 we've got the closed-cycle cooling water equipment  
18 here. All of this information is fundamentally,  
19 it is contained in our testimony.

20 We then have the seawater evaporator.  
21 That's a piece of existing equipment that will  
22 have to be relocated. We've got the distilled  
23 water tank. We also have to put in, relocate from  
24 their temporary location, the firewater pump  
25 building and the firewater storage tank.

1           The one good thing is we will not have  
2           to relocate the oil/water separator. The  
3           oil/water separate is not used in the new  
4           facility. That's good news and bad news, and I'll  
5           get to that in a second.

6           In summary, it's going to take another  
7           one to two months to do the foundations to support  
8           those structures. It will take another 12 to 14  
9           months to build the air-cooled condensers  
10          themselves. We didn't make those numbers up.  
11          Those are the numbers that we have received from  
12          GEA and from our construction staff at the Moapa  
13          project.

14          It's going to take a minimum of another  
15          one to two months to complete the electrical  
16          interconnections and the associated piping  
17          interconnections. We think that's extremely  
18          conservative. That's our estimate. Russ and I  
19          came up with those. We actually think it's going  
20          to be considerably longer than that, because of  
21          the impact of holding out that electrical switch  
22          gear building. But, to be conservative we left it  
23          at one to two months, and that's how we came up  
24          with a 14-to-18-month impact.

25          The problem associated with this

1       constructability issue only gets more severe when  
2       we start looking at staff's optimized 1200-  
3       megawatt configuration, the five-by-seven or  
4       seven-by-five array that's previously been  
5       referred to by Mr. Trump. And then it even gets  
6       worse when you consider Duke's estimated ACC size  
7       of eight-by-size.

8                You'll see we're kind of having to move  
9       things around in the electrical switch yard  
10      building. The berms, we're going to have to do  
11      something to relocate the berms. It simply  
12      doesn't fit in here the way it is now. And the  
13      fundamental reason for that is the distance  
14      between -- Well, the prior base of the berm before  
15      my construction contractor destroyed the berm --  
16      the distance between the base of that berm and the  
17      PG&E property is 575 feet.

18               The distance or the length of the ACCs  
19      is 600 feet long. There is an additional 100 feet  
20      required between the two ACCs for the pipe rack  
21      and the steam duct. That's a total of 700 feet.  
22      We have 575 feet. So it should be no surprise to  
23      anybody that this thing simply doesn't fit on this  
24      particular site.

25               Now, the impact of the schedule delays

1       that Mr. Trump referred to earlier result in  
2       substantial cost impacts, \$80 million of IDC, \$10  
3       million of extended overheads, and \$20 million of  
4       site constraint costs. The site constraint costs  
5       are associated with the demolition and the  
6       rebuilding of the existing facilities: the  
7       firewater pumps, the firewater tanks, the seawater  
8       evaporator, the peregrin building. All of those  
9       costs, all of those facilities must be relocated.

10               We need to relocate and move the  
11       ancillary facilities -- the warehouse building,  
12       the control building, the closed-cycle cooling  
13       water pumps, the chemical injection pumps all have  
14       to be moved another 250 to 300 feet farther away  
15       from the equipment they're serving back in the  
16       power block. That means every single circuit,  
17       going from the power block out to this equipment,  
18       has to be 250 to 300 feet longer, along with every  
19       single pipe in that pipe rack.

20               We also have the impact of putting our  
21       transmission lines underground. That is not  
22       impossible, it's been done before, but it is  
23       costly and it does take more schedule.

24               And last but not least, we have the  
25       impact of the transportation issue. As I

1 mentioned, we have, the ACCs are blocking the  
2 construction access road. We're going to have to  
3 work out something to get around that issue, and  
4 the City has previously stated in their testimony  
5 that if Duke were to propose to move forward with  
6 this project, they would not grant us the  
7 easements that we have asked for and require to  
8 build the Embarcadero extension, the dirt road we  
9 talked about at length yesterday, and the  
10 associated Morro Creek bridge.

11 So we no longer have a circular traffic  
12 pattern around the project, in the back gate,  
13 through the staging area, and back out the front  
14 gate and onto Highway 41. We don't have that  
15 anymore. We've got all the traffic coming in the  
16 back gate, back out the back gate. And we also  
17 have approximately \$50 million of additional  
18 equipment, facilities, and associated craft  
19 workers that have to come in to support this  
20 erection process.

21 Now, I haven't included all the costs.  
22 There are several costs that Duke Energy hasn't  
23 included, one of which was referred to earlier by  
24 Mr. Trump. CEC staff has indicated that we need  
25 to visually mitigate those, so we've put a little

1 model together of these 60- and 70-foot trees, so  
2 they would be somewhere out there. It's  
3 questionable whether you could even grow trees  
4 that large in this area, but we haven't included  
5 the cost from visual mitigation.

6 We haven't included the cost for  
7 replacing the oil/water separator. The oily water  
8 separator that is existing in this project  
9 discharges the water to the discharge tunnels that  
10 go out to Morro Rock. If you don't have water in  
11 the discharge tunnels, you have no place to put  
12 that water. We're going to have to come up with  
13 another system to dispose of that wastewater.

14 This is also in a seismic four-plus  
15 zone. The cost estimates that we've received from  
16 GEA do not include the cost associated with  
17 building these structures in a seismic four-plus  
18 zone. As you can see, they're extremely large  
19 structures, well over a hundred feet tall. To  
20 build those structures in a seismic four-plus zone  
21 is going to require substantial amounts of  
22 additional steel and foundations to be able to  
23 support those structures. Again, it's possible,  
24 but it's extra cost.

25 And last but not least is the issue of



1       how you maintain the large rotating equipment in  
2       the steam turbine buildings and the construction  
3       turbine buildings. That equipment on average --  
4       There are six large generating, rotating pieces of  
5       equipment in those structures. On average, one of  
6       them will have to be maintained every year. It  
7       will require at least one large crane, and because  
8       of the pipe rack, you really don't have any access  
9       from one side to the other, so it would require  
10      two large cranes.

11               Now, the option, as staff indicated in  
12      their rebuttal testimony, which we agree with, is,  
13      well, why don't you just provide permanent cranes  
14      in there and we can do that, it's not a problem.  
15      It is extra cost. You're going to wind up with  
16      six large cranes installed in each of these  
17      structures, one in each of the major structures.  
18      Furthermore, the size or height of those  
19      structures are going to increase by about 25 to 30  
20      feet to accommodate that crane.

21               The other option, of course, is to  
22      simply put temporary mobile cranes in this area.  
23      We can do that, it's not a problem, we'll just buy  
24      the cranes and leave them there. It's just  
25      additional money, and, of course, I don't know

1       what the City's position is going to be on leaving  
2       two mobile cranes sitting on the site in the  
3       middle of a tourist community.

4               MR. POQUETTE:  You might want to point  
5       out, these are the cranes.

6               MR. POLLACK:  Yeah, those are the size  
7       cranes that we would be talking about.  Those are  
8       large 300-ton cranes.

9               In conclusion, our estimate of a 14-to-  
10       18-month schedule extension is extremely  
11       conservative.  We think it may actually be longer  
12       than that, due to the problems associated with the  
13       electrical equipment building.

14              The cost estimates are extremely  
15       conservative.  We believe that the costs will  
16       actually be considerably more than the \$110  
17       million previously identified by Mr. Trump.  And I  
18       hope, as a result of this presentation, we all  
19       understand, and please don't laugh, size doesn't  
20       matter.

21              Regardless of whether you use the five-  
22       by-five array, the seven-by-five array, the eight-  
23       by-five array, it doesn't matter.  You've still  
24       got the same constructability issues, regardless  
25       of which configuration you use, the result of

1       which, it is questionable whether this project is  
2       feasible.

3               I hope, as a result of this  
4       presentation, you understand what I advised our  
5       management of in Houston, and why I gave them the  
6       answer I gave them. We don't believe this project  
7       is feasible or practical from a constructability  
8       standpoint.

9               MR. TRUMP: I just have a couple of  
10      quick additional comments to finish up. I think  
11      it's important that, as Michael indicated, we're  
12      talking a conservative approach here. We have not  
13      accounted for any significant construction delays  
14      and/or revenue-related impacts associated with not  
15      being able to construct these condensers over top  
16      the existing intake and discharge system, for the  
17      existing power plant.

18              Also, I think it's important to note  
19      that the FSA indicates that the larger condensers  
20      are feasible at this site. It's not just a  
21      question of the smaller five-by-five arrays being  
22      feasible but the larger ones not, the FSA  
23      concludes that these larger configurations are  
24      also feasible.

25              And also, I think it's also very

1 important to note that when we get into these  
2 issues of size and output, it's not strictly an  
3 optimization around duct-firing. As figure one on  
4 page seven of our testimony indicates, that the  
5 base load operations would also be affected by the  
6 smaller condensers, and, in fact, would lose  
7 output as well. So it's both base load operations  
8 as well as duct-firing operations would have this  
9 decrement, if you would, of output.

10 And then finally, I think it's also very  
11 important that our proposed eight-by-five is  
12 conservative. And as I believe Mr. Ortega will  
13 point out, if you would take, in terms of relative  
14 comparisons to other types of facilities, given  
15 the types of design, the design basis, the steam  
16 flows that we're trying to achieve, this would  
17 actually be going back many, many years in terms  
18 of the air-cooled condenser design. So this is  
19 conservative, in terms of size, the eight-by-five,  
20 to meet our design output.

21 I'd like to go to the question of cost.  
22 This is a table from our testimony. It shows the  
23 capital cost estimates of those things that we  
24 know about for the four options that have been  
25 analyzed, and this would be Duke's proposed eight-

1 by-five configuration for the dry cooling  
2 alternative one is as high as \$196 million of up-  
3 front capital costs.

4 One question you might have is, well,  
5 what if the condensers were smaller? We have  
6 estimated that, and our estimates are that the  
7 total up-front cost would be impacted around 12 to  
8 14 percent at most. So still very significant  
9 costs, even if the condensers were somewhat  
10 smaller.

11 We've also looked very carefully in  
12 supporting our testimony, what is the basis of  
13 this number. And this slide shows the various  
14 cost components of the total \$196 million. You  
15 can see a number of things here in blue: the  
16 equipment, preparation and post-erection costs,  
17 the erection cost itself. Those items are  
18 reflected, as far as we can determine, in the FSA  
19 itself. These additional cost elements we did not  
20 see are supported in the FSA.

21 I also wanted to emphasize that in terms  
22 of this interest during construction cost, we were  
23 using our first-order estimate that is in our  
24 testimony of \$80 million. As we were developing  
25 the testimony, we also went back and refined that

1 number with more detailed modeling. And, in fact,  
2 that number is higher, it's \$87 million. So, as  
3 you get more detailed, you actually look at the  
4 actual expenditures of monies on a project like  
5 this, that number is actually higher than what is  
6 shown here. So, again, we've chosen to be  
7 conservative.

8 Let me also reinforce, just in terms of  
9 that conservativeness, the Energy Commission FSA  
10 indicates that some of the avoided costs of going  
11 to once-through would be maybe on the order of \$5  
12 million I believe was in the FSA. We've estimated  
13 that at \$25 million. So in these areas where we  
14 could have benefitted from a better number, if you  
15 would, we chose again to stick to a conservative  
16 number. And I think that goes to the overall  
17 conservativeness and credibility of our numbers.

18 We looked back on the 316(b) Clean Water  
19 Act requirements. Do the costs matter? We think  
20 they're material. We think they're central to  
21 this case. It's not just a question of Duke  
22 Energy, a big company, not wanting to spend more  
23 money. It goes to the heart of complexity. It  
24 goes to the issues of how do you solve these  
25 problems. And that all comes out of -- that all

1 sort of basically bubbles up and is reflected into  
2 cost.

3 The EPA is very clear in their BTA  
4 determination, and here I'm talking about it from  
5 a perspective of habitat enhancement which is  
6 another subject, but the BTA test itself does  
7 center around are the costs whole in proportion to  
8 their benefits? The BTA test also has to deal  
9 with non-water-quality-related impacts that cannot  
10 be adequately addressed, or discusses offering  
11 ecological benefits, few ecological benefits in  
12 this case to the watershed. So this is a context  
13 for understanding, from the 316(b) perspective,  
14 what these costs mean.

15 I'll also emphasize that the FSA has --  
16 I found six references to BTA. There was not one  
17 single description of the various tests associated  
18 with BTA. It was just some statements that, well,  
19 BTA is a standard under the LORS discussion, but  
20 there were no qualifications as to, well, what  
21 does it mean, what does BTA ask for? And we think  
22 that's a significant lack in the FSA.

23 I've showed this before, just going  
24 back, you've heard a lot of the different reasons  
25 why we believe that the closed-cycle cooling

1 options are fundamentally infeasible. We've been  
2 at this for over two years of analysis. We've  
3 looked at numerous, numerous, numerous options in  
4 great detail. Why did we do that? Well, we did  
5 that as part of this permitting process, but, as  
6 Mr. Pollack pointed out, we have to answer these  
7 questions for our management. And the conclusions  
8 we're providing today are no different than what  
9 we're providing to our management.

10 First of all, huge costs, infeasibility.  
11 The bottom line becomes what does this really all  
12 mean? Well, we know now that after working for  
13 four years in the community, we don't have the  
14 community support. The City Council has issued  
15 resolutions about they're in opposition to closed-  
16 cycle cooling. I speak with numerous people in  
17 the community, and this is something that were the  
18 Energy Commission to proceed with this, pursue  
19 override issues, I'm sure we would pack this hall  
20 and it would be with people who are opposed to any  
21 kind of actions like that by the Energy Commission  
22 or others.

23 The vendor, as Mr. Ortega will discuss,  
24 does not recommend this system at this site. As  
25 we discussed, already, based on what we know, way



1 too much risk, way too expensive, and I'll further  
2 point out that as we learn more, this whole issue  
3 just continues to grow and compound.

4 I think it also needs to be considered  
5 in the context of the Regional Board staff report,  
6 which has recommended habitat enhancement as the  
7 more protective option, the most protective option  
8 for the Morro Bay estuary, in comparison to  
9 closed-cycle cooling. And I think it's also very  
10 important to come back to the proposed project  
11 with once-through. In our view, in support of our  
12 testimony, it does meet all local LORS.

13 So our conclusion, and this is in our  
14 testimony, is that we believe management could  
15 never be expected to go forward with the project,  
16 with dry or hybrid cooling that had such inherent  
17 risks, unreasonable features, adverse impacts, and  
18 lack of community support.

19 MR. ELLISON: Thank you, Mr. Trump. I'd  
20 now like to address just a couple of questions to  
21 Mr. Ortega.

22 BY MR. ELLISON:

23 Q First of all, Mr. Ortega, where are you  
24 employed and what are your responsibilities?

25 A Yes. I work for GEA Power Cooling

1 Systems, located in San Diego. I've been with GEA  
2 for 20 years, 15 of those years working in the  
3 capacity in the sales and marketing group. At  
4 this time I've been involved in more than 1,000  
5 power projects in the development phase.

6 Q And GEA is a major vendor of air-cooled  
7 condenser systems, correct?

8 A Yes. GEA is a leading vendor of not  
9 only dry-cooled systems, but also wet evaporative  
10 cooled systems, and we also have the expertise in  
11 a number of combined wet and dry cooling systems.

12 Q And GEA is not an affiliate of Duke in  
13 any way, correct?

14 A No.

15 Q In your opinion, does this site meet  
16 GEA's minimum parameters for the installation of  
17 dry cooling?

18 A Well, the absolute minimum parameters  
19 are, quite simply, having a steam turbine and a  
20 place to locate the equipment. To answer that in  
21 context, this site does not have the available  
22 resources to utilize dry cooling to any reasonable  
23 extent.

24 Q In your opinion, is this site suitable  
25 for an ACC system?

1 A No, it is not.

2 Q Given your understanding of the site  
3 constraints and the options available to Duke at  
4 this site, would GEA recommend dry cooling at this  
5 site?

6 A No, we would note.

7 Q I want to read you the definition of  
8 feasible under the California Environmental  
9 Quality Act that was referred to earlier. And  
10 this comes out of Title 14 of the California Code  
11 of Regulations, Section 15364. It defines  
12 feasible as, quote, "Capable of being accomplished  
13 in a successful manner within a reasonable period  
14 of time, taking into account economic,  
15 environmental, legal, social, and technological  
16 factors."

17 Do you have that definition in mind?

18 A Yes.

19 Q With that definition in mind, is dry  
20 cooling feasible at this site?

21 A No, it is not, for a couple of those  
22 reasons.

23 Q And does your answer change, depending  
24 upon whether it is Duke's sizing of the condensers  
25 versus the staff's sizing of condensers?

1           A     No. In either case, the conclusion is  
2     the same.

3           Q     I'm going to ask you a couple of  
4     questions about noise. You provided noise  
5     estimates for the dry-cooled condenser systems  
6     that have been used by both staff and Duke in this  
7     proceeding, correct?

8           A     That's correct.

9           Q     And those are estimates, not commercial  
10    guarantees, correct?

11          A     That's correct.

12          Q     Assuming all else is the same, would GEA  
13    expect to increase its noise estimate somewhat in  
14    providing a commercial guarantee to reflect the  
15    liability associated with a guarantee?

16          A     The information given to date is our  
17    estimates, based on past experience. We would  
18    believe that these noise levels could be met;  
19    however, without knowing the more detailed  
20    information that would normally come later on in  
21    the project, I would anticipate that these noise  
22    levels, if they were to be guaranteed, would  
23    increase rather than decrease.

24          Q     If the project failed to meet the noise  
25    ordinance, is there any reasonable method of

1 significantly reducing the ACC noise that would  
2 not reduce its performance?

3 A Based on the noise levels that had been  
4 included in the proposed designs, there would be  
5 little to no recourse to mitigate -- to further  
6 reduce those noise levels if, in fact, we did not  
7 meet our guarantee that would not also result in a  
8 significant reduction in performance.

9 Q Okay. What is the longest horizontal  
10 steam duct routing for an ACC system that GEA  
11 knows of?

12 A The longest air-cooled condenser --  
13 Excuse me, the longest run of steam ducting on  
14 air-cooled condenser is on the order of 250 feet,  
15 which that plant is now in construction. Prior to  
16 that plant, I believe the longest had been 180  
17 feet. And the typical norm is somewhere between  
18 80 and 120 feet for air-cooled condenser  
19 installations.

20 Q And lastly, has Duke offered you or GEA  
21 any commercial inducement or placed any commercial  
22 pressure on you to present this testimony?

23 A No, they have not.

24 Q Thank you.

25 MR. ELLISON: The panel is available for

1 examination -- Well, let me ask a question. Do we  
2 want to move exhibits today? I know there was a  
3 discussion with Mr. Okurowski and I believe  
4 Ms. Holmes about moving all the exhibits tomorrow,  
5 since this is technically, in terms of testimony,  
6 a subset of marine biology. I can do it either  
7 way.

8 HEARING OFFICER FAY: Even if we end up  
9 going back over covered ground, I'd like to lock  
10 it in now at this time. If you'd move those  
11 exhibits, I'd appreciate it.

12 MR. ELLISON: In that case, I would move  
13 the admission of exhibit 228 and 229, together  
14 with the exhibits that are incorporated by  
15 reference therein, and I'll ask Mr. Okurowski to  
16 describe the incorporated exhibits.

17 MR. OKUROWSKI: Mr. Fay, I'm going to  
18 distribute the same type of evidence list that I  
19 did yesterday to make it easier.

20 HEARING OFFICER FAY: Okay. What I had  
21 in mind is if one of you could just describe those  
22 two exhibits for us, and move them at this time.

23 MR. ELLISON: Well, the two exhibits are  
24 exhibit 228, which is the applicant's direct  
25 testimony in response to the Energy Commission

1 staff's Appendix A, the Morro Bay Power Plant  
2 Cooling Options report, and exhibit 229, which is  
3 the applicant's rebuttal testimony regarding the  
4 Power Plant Cooling Options report.

5 Thank you.

6 HEARING OFFICER FAY: Any objection to  
7 receiving those?

8 All right. Hearing none, so moved.

9 MR. ELLISON: The panel is available for  
10 examination.

11 HEARING OFFICER FAY: Okay. We will  
12 take a ten-minute recess and start in precisely  
13 ten minutes with the staff's cross-examination of  
14 the applicant.

15 (Brief recess.)

16 HEARING OFFICER FAY: Okay. We are back  
17 on the record now, and we will begin with the  
18 staff cross-examination of Duke's witnesses on the  
19 alternative cooling proposal.

20 Would everybody please quiet down.

21 Ms. Holmes, please.

22 MS. HOLMES: Thank you.

23 I'd like to start with a couple of  
24 questions about the design criteria that staff  
25 used in preparing its analysis. I don't know if

1 Mr. Poquette is the correct person to address this  
2 question to. I don't see him.

3 UNIDENTIFIED SPEAKER: Microphone.

4 MS. HOLMES: It's on.

5 HEARING OFFICER FAY: You have to speak  
6 very closely into the microphone, because --

7 MS. HOLMES: Mr. Poquette?

8 MR. POQUETTE: Yes.

9 MS. HOLMES: I'm sorry, I'll wait until  
10 you get seated.

11 CROSS-EXAMINATION

12 BY MS. HOLMES:

13 Q Did you provide design information to  
14 the Energy Commission, specifically to our  
15 contractor, Jim Henneforth --

16 A Yes.

17 Q -- for us to use in preparing the  
18 alternative cooling analysis?

19 A The information that I gave to Jim at  
20 the time was in the context of the ability to  
21 reaffirm the initial size that had been presented  
22 at previous workshops, because there were  
23 challenges made as to the validity of the size  
24 that we had presented.

25 Q Did you respond in an e-mail on the 20th



1 of September --

2 MS. HOLMES: These e-mails, Mr. Fay, are  
3 contained in an exhibit that has not yet been  
4 marked because of the ruling of the Committee to  
5 withhold going through the whole list of exhibits  
6 until a later time. I don't know if you want to  
7 mark it separately now or not.

8 HEARING OFFICER FAY: It's not been  
9 marked or it's not been --

10 MS. HOLMES: I take it -- I'm sorry, I  
11 had it listed as exhibit 168; is that --  
12 Mr. Okurowski?

13 MR. OKUROWSKI: That's correct.

14 MS. HOLMES: That's correct, okay. So  
15 it has been marked but it hasn't been admitted  
16 yet.

17 HEARING OFFICER FAY: Okay.

18 BY MS. HOLMES:

19 Q Would you just turn to the e-mail that  
20 you included in exhibit 168 from yourself to Jim  
21 Henneforth, and in that e-mail you gave a number  
22 for the exhaust flow rate; do you see that?

23 A I'm opening up the e-mail. Yes, I see  
24 that.

25 Q Is there any way to achieve a 1200-

1 megawatt output across the ambient temperature  
2 range that Duke has used, using their flow rate?

3 A No.

4 Q Thank you.

5 MS. HOLMES: I don't know which  
6 witnesses are appropriate to answer questions  
7 about the temperature assumptions, but I had a  
8 couple of questions about those.

9 First of all, is that you, Andy?

10 MR. TRUMP: Well, I can direct the  
11 question to the appropriate person.

12 MS. HOLMES: Thank you.

13 MR. TRUMP: I'd like to caucus a second,  
14 but just -- Go ahead.

15 MS. HOLMES: I was just going to ask a  
16 question about how many hours per year Morro Bay  
17 experiences a temperature of 85 degrees or higher.

18 MR. TRUMP: Okay. For the Morro Bay, it  
19 experiences an 85-degree temperature occurrence or  
20 higher only a very limited amount of the year, one  
21 percent or less.

22 MS. HOLMES: So one percent of the hours  
23 would be a fair --

24 MR. TRUMP: That's correct, based upon  
25 the meteorological data that we have looked at.

1 MS. HOLMES: And do you have the same  
2 information for 75 degrees?

3 MR. TRUMP: I believe Mr. Saldinger has  
4 that information.

5 MR. SALDINGER: If you refer to Duke's  
6 January 7th report, there is a temperature  
7 distribution table in the appendix in the back,  
8 and I'll give you the specific reference in a  
9 moment.

10 MS. HOLMES: Okay. If I could go get my  
11 copy of that, I'll just take a moment. Is that  
12 what has been identified as exhibit 167?

13 HEARING OFFICER FAY: That's correct.

14 MR. SALDINGER: If you turn to page 62,  
15 that is the temperature distribution, historical  
16 temperature distribution for Monterey, which has a  
17 similar distribution to Morro Bay. And your  
18 question, again, was 74 degrees?

19 MS. HOLMES: I believe it was 75  
20 degrees.

21 MR. SALDINGER: Seventy-five degrees?  
22 Well, you can see that the temperatures are dimmed  
23 out in ranges of temperatures --

24 MS. HOLMES: Yes.

25 MR. SALDINGER: -- and from 75 to 79

1 degrees, it looks like, just eyeballing it, it's  
2 maybe a percent, one percent.

3 MS. HOLMES: Well, I guess that's -- I  
4 did look at this chart, and I'm trying to  
5 reconcile the one percent and one percent for both  
6 75 and 85. If I could just get a sense of what  
7 the relative differences between the number of  
8 hours per year that are 75 degrees versus the  
9 number of hours a year that are 85 degrees.

10 MR. SALDINGER: We don't have the  
11 specific number of hours for 75.

12 MS. HOLMES: Okay, thank you.

13 Mr. Trump, do you know whether or not  
14 the existing plant operates at full capacity every  
15 hour that's 85 degrees in Morro Bay?

16 MR. TRUMP: I don't have knowledge that  
17 would correlate the output of the facility to  
18 ambient temperature conditions at Morro Bay.

19 MS. HOLMES: On page six of your  
20 testimony on the first full paragraph, there is a  
21 discussion about the fact that there can be high  
22 temperatures throughout the state; do you see that  
23 reference?

24 MR. TRUMP: I'm on page six. Can you  
25 refer me to the specific paragraph?

1 MS. HOLMES: It's the first full  
2 paragraph, starting at the top of the page.

3 MR. TRUMP: I believe I see the sentence  
4 you're referring to.

5 MS. HOLMES: Isn't it true that it's the  
6 temperature in Morro Bay that would have an effect  
7 on the output of the project, and not the  
8 temperature elsewhere in the state?

9 MR. TRUMP: Are you referring to the  
10 existing project or the proposed new project?

11 MS. HOLMES: The proposed project, with  
12 specifically using alternative cooling.

13 MR. TRUMP: The ambient temperature of  
14 Morro Bay would have an effect on the efficiency  
15 of the power plant utilizing dry cooling or hybrid  
16 cooling.

17 MS. HOLMES: So, in other words, if the  
18 temperature were higher elsewhere in the state and  
19 the loads were higher elsewhere, that would not be  
20 relevant to the output of the facility for raising  
21 alternative cooling? It would, in fact, be the  
22 temperature in Morro Bay; is that correct?

23 MR. TRUMP: Yes. The ambient conditions  
24 in Morro Bay would determine the efficiency of the  
25 power plant in Morro Bay.

1 MS. HOLMES: And isn't it generally true  
2 that as the temperatures go up in the inland  
3 portions of the state, in fact, the temperatures  
4 along the coast become cooler?

5 MR. TRUMP: I don't have information  
6 regarding the correlation of temperatures here  
7 versus inland. I know that there could be  
8 significant temperature gradings between here and  
9 the inland areas. I also know that there are --

10 MS. HOLMES: That's fine, thank you.

11 Later on in the paragraph you refer to  
12 other projects being out of service for  
13 maintenance; do you see that reference?

14 MR. TRUMP: I do see it.

15 MS. HOLMES: Isn't it true that  
16 typically for planned maintenance, plant operator  
17 pick times of low demand to conduct that  
18 maintenance?

19 MR. TRUMP: Typically the power plant  
20 operator would choose to do planned periodic  
21 maintenance during periods of the year where it  
22 would be anticipated that the demand for  
23 electricity would be less.

24 MS. HOLMES: Okay, thank you. I have  
25 one last question on temperature, I'm sorry to

1       jump around. There was a figure provided in the  
2       AFC on page 8-18 that I just want to confirm with  
3       respect to temperature data, which indicated that  
4       the annual average afternoon summer temperature in  
5       Morro Bay, which I believe is four hours, is 64  
6       degrees. And I just wanted to confirm with the  
7       new temperature data that we received that that  
8       number is still valid.

9               MR. TRUMP: I'm not familiar with the  
10       temperature graph that you're referring to in the  
11       AFC.

12              MS. HOLMES: Okay, thank you.

13              On page eight of the testimony, there is  
14       a discussion about incremental power loss; do you  
15       see that, Mr. Trump?

16              MR. TRUMP: I see the second paragraph  
17       if that's what you're referring to.

18              MS. HOLMES: You refer to the graph when  
19       you make the claim that "Operation of these  
20       resources could have potentially significant air  
21       emission impacts"; do you see that?

22              MR. TRUMP: I see a reference to the  
23       potential for increased air impacts associated  
24       with existing old or steam generators, if that's  
25       what you're referring to, yes.

1 MS. HOLMES: So you weren't assuming  
2 that incremental power loss would be replaced by  
3 any one of the number of new peaking plants that  
4 have gone in the state in the last two years?

5 MR. TRUMP: Mr. Weisenmiller, in your  
6 testimony, this is a general statement that's made  
7 to support the analysis that's provided later  
8 regarding the exact computations that we performed  
9 to explain the value of the energy loss, will it  
10 be made up elsewhere. And Dr. Weisenmiller would  
11 be the appropriate person to talk about the  
12 specific assumptions that were used regarding  
13 that.

14 MS. HOLMES: Well, I'm referring to, I  
15 don't know whose statement it is, that discusses  
16 the air emissions, not the energy costs. And I'm  
17 trying to find out whether or not that assumption  
18 took into account the -- whether it assumes that  
19 the plants that would be operating were what are  
20 referred to as more efficient steam generators, or  
21 whether or not you were assuming that any one of  
22 the new peaking facilities that's been licensed  
23 and constructed would be operated.

24 MR. ELLISON: Well, the issue of  
25 regardless of whether it's for the purpose of cost



1 or whether it's for the purpose of air emissions,  
2 the issue of what plants would be likely to  
3 operate to make up the incremental loss capacity  
4 would be best addressed by Dr. Weisenmiller.

5 Do you want to address your question  
6 to --

7 MS. HOLMES: I think I'll skip it for  
8 now and see if we need to come back to it.

9 There was a reference earlier this  
10 morning, I think it was by Mr. Trump, to a 20-acre  
11 site. Does that refer to the tank farm site?

12 MR. TRUMP: That refers to the  
13 approximate acreage of the one shaded grey area  
14 that was on the one site map I provided. I  
15 believe it was the second in sequence, and it's  
16 the approximate acreage of that greyed-out area.

17 MS. HOLMES: Are you referring to your  
18 Powerpoint of this morning?

19 MR. TRUMP: I am.

20 MS. HOLMES: So it doesn't, for example,  
21 include the site of the existing power plant?

22 MR. TRUMP: It does not include the site  
23 of the existing power plant.

24 MS. HOLMES: Or other property that Duke  
25 owns here contiguous to that?

1                   MR. TRUMP: Yes. For example, it  
2 doesn't include the RV park.

3                   MS. HOLMES: Thank you, and other  
4 portions of the site?

5                   MR. TRUMP: Correct, like the Lila  
6 Kaiser field.

7                   MS. HOLMES: And areas that -- Well, why  
8 don't you show us on -- why don't you just tell  
9 me, what is the acreage of the property that Duke  
10 owns here?

11                  MR. TRUMP: I'm sorry, could you repeat  
12 the question?

13                  MS. HOLMES: The acreage.

14                  MR. TRUMP: Of what?

15                  MS. HOLMES: Of the property that Duke  
16 owns.

17                  MR. ELLISON: And, just to clarify,  
18 you're not asking with respect to where a new  
19 power plant could be located, just the entire  
20 property that Duke owns?

21                  MS. HOLMES: I'm asking for the total  
22 property, the entire property.

23                  MR. TRUMP: The total acreage of the  
24 property which Duke owns at this time is  
25 approximately 107 acres.

1 MS. HOLMES: Thank you.

2 You also referenced a facility that Duke  
3 is constructing, and I think it's Moapa, Nevada?

4 MR. TRUMP: That's correct.

5 MS. HOLMES: Is that facility going to  
6 utilize duct-firing?

7 MR. TRUMP: I believe it is a duct-fired  
8 facility, yes.

9 MS. HOLMES: Do you know what the  
10 maximum temperature is in Moapa? Or perhaps I  
11 should ask -- Let me start with that question. Do  
12 you know what the maximum temperature is in Moapa?

13 MR. TRUMP: Do I know what the maximum  
14 ambient temperature is that has been achieved  
15 recently in that location, is that your question?

16 MS. HOLMES: Yes.

17 MR. TRUMP: I do not.

18 MS. HOLMES: Do you know what  
19 temperature the facility was designed for?

20 MR. TRUMP: I know that the facility was  
21 designed to reach higher ambient temperatures than  
22 the preliminary design that's been discussed and  
23 proposed here, because the ambient temperatures in  
24 Moapa are generally higher than what are achieved  
25 in Morro Bay.

1 MS. HOLMES: Right, and the question  
2 that I'm trying to get at is whether or not you  
3 have similarly picked in Moapa a desired  
4 temperature range that includes temperatures that  
5 are achieved less than one percent of the time?

6 MR. TRUMP: I do not have knowledge as  
7 to the design basis that was used in Moapa  
8 regarding that kind of level of detail.

9 MS. HOLMES: I think those are all my  
10 questions.

11 HEARING OFFICER FAY: All right.

12 Mr. Naficy?

13 MR. NAFICY: I want to apologize in  
14 advance, because I don't know if my questions are  
15 going to jump around among the different  
16 witnesses, so I'll go ahead and address them to  
17 you, Mr. Trump, and you can direct them.

18 CROSS-EXAMINATION

19 BY MR. NAFICY:

20 Q Has Duke performed any economic  
21 feasibility analysis on whether just a base load  
22 plant without duct firing would be economically  
23 feasible at Morro Bay?

24 A I am not aware of any analysis that's  
25 been done to consider a non-duct-firing facility

1 at Morro Bay.

2 Q Thank you. Was there an economic  
3 feasibility analysis done on the proposed project  
4 with alternative cooling, under any of the  
5 scenarios?

6 A A formal evaluation of the economics of  
7 this facility that would include the design  
8 considerations we've discussed today and the cost  
9 has not been performed.

10 Q So you don't know if the plant, with  
11 alternative cooling, would be economically viable;  
12 is that correct?

13 MR. ELLISON: Can you define what you  
14 mean by "economically viable."

15 MR. NAFICY: A money-making venture.

16 MR. ELLISON: Are you asking for his  
17 opinion as to whether this would be a money-making  
18 venture? Is that the question?

19 MR. NAFICY: No, I'm not. I'm asking  
20 him if any studies were performed to find out the  
21 answer to that question.

22 MR. TRUMP: Would you repeat the  
23 question again, please?

24 BY MR. NAFICY:

25 Q Was an economic feasibility study done

1 on the proposed project with alternative cooling?

2 A A feasibility, an economic feasibility  
3 study for the Morro Bay power plant with  
4 alternative cooling has not been performed.

5 Q Okay. Have you seen the Tetrattech  
6 analysis which was included -- that was recently  
7 finalized and was provided by the Regional Board  
8 regarding the proposed plan with alternative  
9 cooling?

10 A I'm familiar with the May 2002 Tetrattech  
11 report. I don't believe, subject to checking,  
12 whether that's been docketed as part of this  
13 proceeding.

14 Q I'm not sure either, but do you know, in  
15 your review of it, are you aware whether it  
16 concluded that the proposed plan with one of the  
17 alternative coolings would be viable or not,  
18 economically viable?

19 A I recollect that that analysis was  
20 provided in that report, I'm not aware of any  
21 conclusions that might have been drawn in that  
22 report regarding it.

23 Q Has there been a study, to your  
24 knowledge, about the need for peak capacity in  
25 California beyond the available base load, both

1       today and as projected, based on the applications  
2       and processes in place now into the near future?

3               MR. ELLISON: I'm going to object that  
4       the question is ambiguous, and let me tell you  
5       what my concern is. When you say the need for  
6       peak capacity, the need to talk about over what  
7       period of time, and perhaps in locations, you need  
8       to be much more specific.

9               And the other question I would have is  
10      are you asking if Duke has performed such a study,  
11      or is he aware of any studies of that kind  
12      anywhere?

13              MR. NAFICY: Well, the question was are  
14      you aware of any study by Duke or anyone, and the  
15      question goes to whether -- you know, we have base  
16      load plants and then there are some peaker plants  
17      that, you know, you discuss in the testimony, and  
18      the question is beyond, you know, what the base  
19      load plants can handle, how much need there is in  
20      the State of California for peaker capacity to  
21      deal with, you know, shortages.

22              MR. TRUMP: I think that question could  
23      be more expertly answered by Dr. Weisenmiller, so  
24      I would suggest that that would be a good question  
25      to ask of him.

1           MR. NAFICY: Is he here? Would you like  
2 me to hold it, and --

3           MR. TRUMP: Sure. He's here.

4           MR. NAFICY: Okay.

5           MR. WEISENMILLER: Good morning. In my  
6 testimony, which is attachment three, particularly  
7 on page 76, what I did was point to the recent  
8 Energy Commission report, and, you know, page 76,  
9 section B(1), and it indicates that what the CEC  
10 found in the 2002 to 2012 Electricity Outlook was  
11 there was real possibilities of insufficient  
12 resources beginning in the 2003 time frame.

13           And they were talking about peaking, and  
14 they also indicate that since that Energy  
15 Commission report was released, if anything there  
16 have been more projects withdrawn, delayed or put  
17 on hold since the report was issued in November.  
18 So that there were at least, from the Commission's  
19 perspective, some possibilities in post-2003 time  
20 that there would be a need for additional peaking  
21 capacity.

22 BY MR. NAFICY:

23           Q     Have you quantified the need for peaking  
24 capacity, or you're just sort of qualitatively  
25 depending on what the CEC has said?



1           A     Well, the CEC report does a quantitative  
2     analysis, and what they indicate that as part of  
3     that analysis you actually have to look at a  
4     variety of factors. And, depending upon the  
5     scenarios you're looking at, those factors  
6     include, obviously, what the weather is. You  
7     know, if you have a hot year versus a cool year,  
8     that has a significant impact upon the amount of  
9     peaking capacity you need.

10           Also, you have to look at what the long-  
11    term growth is, what is the sustainability of  
12    conservation, how many plants are added, and then  
13    also plant outages. So there is a variety of  
14    factors which translate into various  
15    probabilities. And so they are indicating, at  
16    least, there is some concern in that range of  
17    uncertainty that there will be problems.

18           Q     Okay. Let me just clarify one confusion  
19    that I have. On that same page, on 76, at  
20    footnote 50 it refers to this 2002-2012  
21    Electricity Outlook Report, and then it says  
22    February 2002.

23           A     Right.

24           Q     Is that an update, or --

25           A     No, it sort of -- The Energy Commission

1 staff put out the report, and then the Commission  
2 had hearings on it and then adopted it and  
3 finalized it and it was published.

4 Q Okay.

5 A And so that's a multi-month process, and  
6 what I was referring to was obviously looking at,  
7 at least in those conclusions, how much did they  
8 change in the review process.

9 Q Thank you for that.

10 Now, do you have an opinion as to why,  
11 if there are these -- this need for peaker  
12 capacity in the future, as you cite, many  
13 applications for building new power plants,  
14 including peaker plants, have been withdrawn?

15 A Well, I mean, you have to look at the  
16 basics where, in an analysis of whether to build  
17 the project, the first thing you need is you need  
18 creditworthy entities. And, as you know, we  
19 have -- at least PG&E is now bankrupt, and at the  
20 same time Edison has been on the precipice of  
21 bankruptcy and is not investment grade.

22 So two of -- And none of them at this  
23 point, neither of those utilities nor Sempra has  
24 any standards in place for the PUC on procurement.  
25 So you don't have a buyer, you have a financial

1 community perspective of investment risk, and, you  
2 know, it's sort of why -- you know, to go forward  
3 to build peaking plants, you also get into  
4 questions of, you know, will the new market design  
5 have a capacity requirement? And, if so, as I  
6 indicated, who falls under that requirement?

7 Is that, at least at this point, you  
8 know, you would think in this area, well, you just  
9 go to PG&E, PG&E would sign the contract and  
10 things would move forward. Well, they cannot sign  
11 the contract. So there's a phenomenal amount of  
12 uncertainty perceived by the financial community  
13 and by developers at this stage for any  
14 investments in California in the power sector.

15 Q I'm sorry, and I really don't mean to be  
16 rude, but I'm under severe time constraint based  
17 on what the Committee has said, and if you could,  
18 you know, just kind of summarize your answers, and  
19 I know you have a lot of information, but if you  
20 could just summarize it.

21 MR. ELLISON: I'm going to object to  
22 that. He's going to give a complete answer. He's  
23 not stalling, but he will answer the question  
24 completely.

25 MR. NAFICY: Right, and I'm asking him

1 to answer in a summary fashion and, you know --

2 MR. ELLISON: And I'm telling you he's  
3 going to answer the question completely and not in  
4 a summary fashion. Keep that in mind when you ask  
5 your questions.

6 MR. NAFICY: I don't hear a ruling, so  
7 I'll just keep going.

8 BY MR. NAFICY:

9 Q So would you agree with the following  
10 summary of your testimony, there's uncertainty in  
11 the market, and that's at least one reason why  
12 there are not additional -- many of these  
13 applications for plants have been withdrawn?

14 A There is uncertainty -- Yes. There is  
15 uncertainty in the markets and uncertainty leads  
16 to perceptions of risk, and that hinders  
17 investment.

18 Q Thank you. Now, in your calculations of  
19 estimates of cost to Duke of lost revenue because  
20 of no -- if there's no duct firing, you used  
21 figures from May '99 to April of 2000; is that  
22 correct?

23 A No, those calculations are what the rate  
24 payer impacts are. I did two calculations. One  
25 was rate payer impacts and one was Duke. So that

1 was the rate payer impacts and it was for that  
2 time period.

3 Q Right. Is it not true that there is a  
4 lot more generating capacity in the market today,  
5 as compared to this period?

6 A There is more generating capacity, there  
7 is more load. Again, in my professional opinion,  
8 I thought that was a reasonable estimate for the  
9 market numbers.

10 Q You assume that there will be 4,000  
11 hours of peak need or peak production by this  
12 plant.

13 A I assumed that it would duct-fire for up  
14 to 4,000 hours, that's correct.

15 Q What was that assumption based on?

16 A That was based upon the permit  
17 requirement that it would not duct-fire for more  
18 than that.

19 Q So it was based on a limitation in the  
20 permit and not some market condition that you  
21 based it on; is that correct?

22 A That's correct. Again, what I did was I  
23 looked at how much de-rating would occur with dry  
24 cooling, and then I looked at for those -- for  
25 that test year, what was the temperature at that

1 time, the de-rating, and then what was the value  
2 of the power at that time.

3 Q Right. You also state on page 76 that  
4 "The loss of generation capacity at Morro Bay  
5 would, quote, 'have a negative impact on  
6 California's power system reliability'?"

7 A That's correct.

8 Q And do you know what is the total size  
9 of California's electricity market?

10 A Oh, sure. I mean, you're looking at a  
11 very large system, so 200 megawatts in general is  
12 relatively small. But, you know, typically on the  
13 peak times, it's, say, 50,000. You know, loads  
14 today are probably more on the 30 to 40 range.

15 But I think what I indicated was that  
16 much of the -- When the impacts are greatest, the  
17 200 megawatts, tends to be when it's most needed  
18 on the system.

19 Q So do you know that the amount of power  
20 that would -- electricity generation that would be  
21 lost if there was no duct-firing here, do you know  
22 approximately what percentage of the total  
23 capacity the system is?

24 A Well, you know, I didn't really look at  
25 the question of duct-firing, I looked at the

1 question of the dry cooling impacts.

2 Q Okay.

3 A And the dry cooling impacts, what the  
4 impacts would be, and this is on page 75, would be  
5 200,000 megawatt hours. And again, that is --  
6 Part of the reason for taking the steps I did is  
7 that it's a relatively small number, but one  
8 cannot just look at averages, but need to look at  
9 when that occurred and what the value of power was  
10 at those times.

11 Q Okay, thank you.

12 MR. NAFICY: I'm done with this witness,  
13 thank you.

14 I want to ask some questions about the  
15 project objectives and try to understand how the  
16 project objectives were derived.

17 Is the project objective at bottom  
18 anything other than making a profit? Are there  
19 any other real objectives here?

20 MR. TRUMP: There are other objectives.  
21 We have supported those in our testimony and in  
22 the AFC. Certainly, making a profit is a  
23 condition precedent to be able to do anything. If  
24 there is no profit, there cannot be any  
25 investment.

1 BY MR. NAFICY:

2 Q Okay. If there are other objectives  
3 that are unrelated to being able to make a profit,  
4 could you just list them?

5 A I believe this was covered in the  
6 project description testimony back in November.  
7 So I'd like to be able to refer back to the  
8 project description -- AFC itself and testimony,  
9 and I think that would be the most relevant place  
10 to go, in terms of understanding the project  
11 objectives. And I don't have the project  
12 description testimony in front of me right now.

13 One of the key objectives is to  
14 modernize the facility.

15 Q And why is that a project objective? Is  
16 that just because you don't like old plants or is  
17 there another reason for it?

18 A Well, it's important to be able to  
19 continue to invest in your facilities. It's  
20 important to continue to upgrade them over time.  
21 There are choices that can be made regarding  
22 upgrades. There are choices that affect cost and  
23 schedule and efficiency and market opportunities.  
24 When evaluating the opportunity here, and working  
25 with the City of Morro Bay as one external



1 stakeholder, the proposed project is deemed by  
2 Duke to be a very reasonable course of action.

3 Q There was earlier testimony today that  
4 unless the -- I think -- I mean, correct me if I'm  
5 wrong, but wasn't the testimony that unless  
6 there's use of once-through cooling that the City  
7 of Morro Bay would not grant certain easements or  
8 rights of use of their properties?

9 A I made that reference. My reference is  
10 to my reading of the testimony provided by the  
11 City, their direct testimony. It's probably  
12 preferable for me to not go beyond a  
13 generalization of that, in terms of what the  
14 City's particular interests, needs or concerns  
15 are.

16 However, I do think it's relevant to  
17 emphasize the importance of various agreements  
18 that are necessary, and I refer to them as  
19 commercial agreements to be able to accomplish a  
20 project like this consistent with the CEQA  
21 feasibility requirements.

22 Q Referring to your Powerpoint today,  
23 under flaws with alternative cooling, the first  
24 bullet under legal issues, it says, "City does not  
25 support project with alternative cooling. Will

1 not provide easements, water, etc."

2 Does that refresh your recollection of  
3 what the City's position is, with respect to  
4 alternative cooling?

5 A Again, I was basing those words on that  
6 slide, and the direct testimony that was written  
7 and filed by the City of Morro Bay that has been  
8 docketed and is part of this proceeding. I don't  
9 know how to make it more clear.

10 Q Okay. Again, this is going to be a  
11 little bit jumpy, because there is a lot of  
12 testimony to cover. But there is some discussion  
13 of feasibility of certain alternatives and whether  
14 they can be feasible if the design option would  
15 require encroachment into PG&E properties.

16 Has PG&E been approached whether they  
17 would be amenable to working out some kind of a  
18 deal, if that's what would be required?

19 A We have not approached them and had  
20 formal discussions of any kind regarding  
21 encroachment onto their facility, near the switch  
22 yard, near the active equipment in the switch  
23 yard. That would, of course, if we were forced to  
24 do dry cooling, would be a discussion we would  
25 have.

1           We believe that this would be of utmost  
2       concern to PG&E. We believe that it would be  
3       something that would be fundamentally not allowed.

4           Q     Okay. Under visual impacts on page 11  
5       of the testimony, there's a statement that says  
6       that "Visual impacts of air cooling would, quote,  
7       'cross the threshold of significance and would  
8       create a significant adverse visual impact.'" Do  
9       you see that?

10          A     I have page 11 in front of me.

11          Q     Okay. Now, when you say that the visual  
12       impacts would cross the threshold of significance,  
13       are you comparing the visual impacts of  
14       alternative cooling to the existing plant, or to  
15       once-through cooling -- to a once-through cooled  
16       proposed plant?

17          A     I think it's appropriate if we get into  
18       detailed questions on visual resources that we  
19       turn to the representative from EDAW, Paul  
20       Curfman, to address those questions.

21               MR. CURFMAN: The question, again?

22               MR. NAFICY: I don't think your mic is  
23       on, but the question is, referring to the  
24       statement on page 11 that "Visual impacts of  
25       alternative cooling would, quote, 'cross the

1 threshold of significance and would create a  
2 significant adverse visual impact," I was  
3 wondering if that comparison that you made to  
4 arrive at that conclusion was with the existing  
5 plant or with the proposed plant?

6 MR. CURFMAN: Our analysis was based on  
7 comparing the proposed plan to the alternative  
8 cooling scenarios.

9 MR. NAFICY: Okay. So compared to the  
10 existing plant, your statement testimony is not  
11 that compared to the existing plant, air cooling  
12 would cause a significant visual impact; is that  
13 correct?

14 MR. CURFMAN: We didn't make any  
15 evaluation about that.

16 MR. NAFICY: Okay. Now, are you aware  
17 of any request by the City and the public in the  
18 past for scale models of the existing plant and  
19 the new plant during any public workshops?

20 MR. CURFMAN: Yes.

21 MR. NAFICY: And before today, were  
22 these requests -- were these models provided?

23 MR. CURFMAN: No.

24 MR. NAFICY: Now, do you recall  
25 indicating that such models could be done, but

1       that they shouldn't be done because they would be  
2       deceptive?

3               MR. CURFMAN:   The reasons for the model  
4       were requesting an understanding of its  
5       relationship to the surrounding context, and we  
6       didn't feel that a model could accurately portray  
7       the power plant relative to the surrounding  
8       context as well as we had provided, given the  
9       computerized model.   That did a much better job.

10              MR. NAFICY:   I'm sorry, could you just  
11       give me a yes or no answer, because I don't know  
12       what you just answered.   The question was, when  
13       that request was made in the past, did you not  
14       state that these such models should not be done  
15       because they are, quote, deceptive?

16              MR. ELLISON:   Mr. Naficy, let me ask you  
17       to clarify your question.   Are you asking for  
18       deceptive, specific for the purposes of displaying  
19       the visual impact, which is Mr. Curfman's  
20       expertise, or are you asking for deceptive for any  
21       other purpose, such as showing constructability  
22       issues?

23              MR. NAFICY:   Well, I'm not really sure  
24       what he meant when he said it, but I just want to  
25       establish whether those words were spoken.

1 HEARING OFFICER FAY: And I do want to  
2 interject here, Mr. Ellison is correct that  
3 witnesses have to be allowed to give their answer  
4 in their own words, but I do think it's reasonable  
5 that if a question can at all be answered yes or  
6 no and then explain that answer, please do so.

7 MR. NAFICY: Well, there's a pending  
8 question that, you know, you gave the explanation  
9 but I was hoping you could give a yes or no answer  
10 to it.

11 MR. CURFMAN: You'll have to ask the  
12 question one more time, please.

13 MR. NAFICY: Okay. The question was,  
14 did you state that such models should not be done,  
15 should not be made because they would be, quote,  
16 "deceptive"?

17 MR. CURFMAN: No, I did not state that.

18 MR. NAFICY: Did you state words to that  
19 effect?

20 MR. CURFMAN: No, I did not.

21 MR. NAFICY: So you never said that  
22 building scales like that would be deceptive?

23 MR. CURFMAN: No.

24 MR. NAFICY: Okay. Now, were you  
25 involved in preparing these KOP, you know, large

1 views of the proposed plant versus the alternative  
2 cooling options that were included in Duke's  
3 testimony?

4 MR. CURFMAN: Those were prepared in our  
5 offices.

6 MR. NAFICY: Okay. Do you have  
7 access -- I want to refer to KOP 15 that was  
8 submitted as part of Duke's testimony.

9 HEARING OFFICER FAY: What page is that  
10 on?

11 MR. NAFICY: Oh, I'm sorry, I've taken  
12 my exhibit out of the testimony. Perhaps the  
13 witness could give it to you.

14 MR. CURFMAN: I know what it looks like.  
15 Yeah, Seven and 14 were submitted in the actual  
16 testimony.

17 MR. NAFICY: I think perhaps 15 was  
18 submitted as part of the rebuttal.

19 MR. CURFMAN: We'd appreciate a page  
20 reference on that. You know, I'm sorry, the  
21 visual that's there is not the same KOP 15 that I  
22 have.

23 If you like, you can just use this and  
24 project it.

25 HEARING OFFICER FAY: Let me just

1 project what it is you're trying to portray.

2 MR. NAFICY: Yeah, just at the top of  
3 that one.

4 MR. CURFMAN: And please state where  
5 this is found in the record.

6 MR. NAFICY: I believe it's an exhibit  
7 to the rebuttal testimony that was filed by Duke.

8 MR. ELLISON: Yes, that's right.

9 MR. NAFICY: Okay. The testimony  
10 offered by Duke is that the project as proposed,  
11 and the project as proposed with alternative  
12 cooling, that there is a significant impact from  
13 alternative cooling options.

14 Would you agree -- Referring to that top  
15 picture, would you agree that that depicts an  
16 industrial site?

17 MR. CURFMAN: Yes.

18 MR. NAFICY: And would you consider that  
19 a compromised view of the surroundings of Morro  
20 Bay?

21 MR. CURFMAN: I don't know what you mean  
22 by "compromised."

23 MR. NAFICY: Is that a pristine view of  
24 the ocean and the Rock, Morro Rock?

25 MR. CURFMAN: No, it's not pristine.



1           MR. NAFICY: Okay. Now, I mean, it's  
2           difficult for me to understand how going from a  
3           site where you can see lots of industrial  
4           structure stacks, electric lines, and then there  
5           is a square added to it, and that is somehow  
6           significantly worse. And I was just hoping that  
7           you could explain to me the reasoning that allows  
8           you to go from the top picture to the bottom  
9           picture, saying that that's a significant visual  
10          impact.

11          MR. CURFMAN: Well, I don't think we  
12          evaluate any one KOP to come to a determination of  
13          significance. We look at the group of them as a  
14          whole.

15          MR. NAFICY: Well, okay. I mean, we  
16          could look at other ones, but basically from  
17          almost every one, you're still going to see a  
18          smokestack, you're still going to lots of electric  
19          utility lights and adjacent buildings, and then on  
20          some of them you have this square added. So could  
21          you maybe just generally explain the rationale  
22          that allows you to conclude that that's a  
23          significant impact, that kind of analytical route  
24          from one to the other?

25          MR. CURFMAN: It's a very large square.

1 MR. NAFICY: That's your answer?

2 MR. CURFMAN: Yes.

3 MR. NAFICY: Okay, thank you.

4 I have a very basic kind of question,  
5 and I'm not sure, again, who is going to answer  
6 it. Does Duke contend that the proposed project  
7 is a new plant or a power plant expansion?

8 MR. TRUMP: I think that would be  
9 appropriate to have our land use person answer  
10 that question. The issues around the choice of  
11 words are very important. It has relevance to a  
12 number of different complex land use issues, so I  
13 don't want to answer the question without  
14 precision.

15 So Kirk?

16 MR. MARCKWALD: Yes, and I have been  
17 sworn.

18 MR. NAFICY: Would you like me to repeat  
19 the question?

20 MR. MARCKWALD: Please.

21 MR. NAFICY: The question is, is this a  
22 new plant or an existing -- expansion of an  
23 existing plant, or modernization of an existing  
24 plant? I'm a little bit confused, because I've  
25 seen different references. So could you just

1 clarify that.

2 MR. ELLISON: Okay, when you say "this,"  
3 do you mean the project that is proposed by Duke?

4 MR. NAFICY: Correct, although -- Yes.

5 MR. MARCKWALD: Duke's proposed project  
6 is a replacement.

7 MR. NAFICY: It's a replacement. Can  
8 you recall if anywhere in the testimony it's  
9 referred to as a replacement?

10 MR. MARCKWALD: I would need to look,  
11 but I'm sure that I could point out several  
12 places, particularly in the land use testimony.

13 MR. NAFICY: Okay. Yeah, let's look at  
14 page 15, that second full paragraph. Do you have  
15 that in front of you?

16 MR. MARCKWALD: On page 15 --

17 MR. NAFICY: Yes.

18 MR. MARCKWALD: -- the paragraph that  
19 starts, "As"?

20 MR. NAFICY: No, the paragraph that  
21 starts, "The second major."

22 MR. MARCKWALD: Okay.

23 MR. NAFICY: So, then, I believe it's  
24 the third sentence that says, "While the new plant  
25 is a replacement of existing structures and, thus,

1 an exception to the limit, the City would have to  
2 conclude that dry cooling and hybrid equipment  
3 would also qualify for this exception."

4 Is what you're saying -- Well, first of  
5 all, let me ask a prior question. Would your  
6 answer be different to the question I asked if you  
7 considered an alternative cooling in conjunction  
8 with the modernization or the replacement?

9 MR. MARCKWALD: This paragraph refers to  
10 the 30-foot height limitation. Is that -- I mean,  
11 I'm not sure what you want me to refer to.

12 MR. NAFICY: Right. Well, Mr. Ellison  
13 had qualified my question earlier and said are you  
14 referring to Duke's proposed project, and Duke's  
15 proposed project is with once-through cooling. So  
16 Duke's proposed project with alternative cooling,  
17 would your analysis as contained in this paragraph  
18 remain the same, or would it be -- would you give  
19 a different answer?

20 MR. MARCKWALD: Because the zoning would  
21 not accommodate, the current zoning would not  
22 accommodate the dry cooling, I think -- I'm not  
23 sure how it would be interpreted, whether it would  
24 be interpreted as a replacement, and thus, whether  
25 the height limitation would apply.

1           MR. NAFICY:   Okay.   So you don't know  
2   what their analysis would be; is that correct?

3           MR. MARCKWALD:   I think I would let the  
4   City speak for itself.

5           MR. NAFICY:   Right, but I mean in the  
6   direct testimony, you did say in light of this and  
7   the City's opposition to dry cooling, there is no  
8   basis for believing the City would reach such a  
9   conclusion.   I guess, had you analyzed the  
10   question and reached your own conclusion?

11          MR. MARCKWALD:   We believe this is a  
12   replacement project.   We have no reason to believe  
13   the City would necessarily draw the same  
14   conclusion.

15          MR. NAFICY:   Would you agree, with an  
16   approach to analyzing the project, where different  
17   components of the project were considered  
18   separately under the zoning rather than the entire  
19   project as one project?

20          MR. ELLISON:   I'm sorry, I don't know if  
21   the witness understood that question, but I  
22   didn't, so --

23          MR. NAFICY:   Okay.   The question is,  
24   there is this -- in this analysis, the analysis in  
25   this paragraph chops up, essentially chops up the

1 project into a component that is the cooling part  
2 of it and then the rest of it.

3 And I'm wondering if, I mean, do you  
4 think that's an appropriate way of looking at the  
5 project, if you're analyzing whether it's an  
6 existing structure or a replacement?

7 MR. ELLISON: Okay. Well, your question  
8 assumes that it chops up in that way in that  
9 paragraph. I don't think that's correct, so I'm  
10 going to object to the question. I think what the  
11 paragraph refers to is comparing the project with  
12 dry cooling as an entire project, versus the  
13 project now as proposed.

14 MR. NAFICY: Did the project without dry  
15 cooling, does it contain any structures that are  
16 beyond the 30-foot height limit?

17 MR. MARCKWALD: Yes, it does.

18 MR. NAFICY: Okay. But without -- Is  
19 there any doubt in your mind that without  
20 alternative cooling that the City would consider  
21 this 30-foot height limit not a violation of their  
22 zoning?

23 MR. MARCKWALD: I think that question  
24 calls for a response from the City.

25 MR. NAFICY: Well, you're Duke's land

1 use expert, I'm asking you. You've seen their  
2 zoning ordinance, and I'm asking you if, based on  
3 your understanding and expertise, the proposed  
4 project without alternative cooling would qualify  
5 for an exemption from that 30-foot height limit?

6 MR. MARCKWALD: It's Duke's testimony  
7 that we do, that the project as proposed does  
8 qualify for an exemption of the 30-foot limit. As  
9 I remember it, it's the City's position that the  
10 same test can be satisfied, but the exemption  
11 would accrue, given not the fact that it was  
12 merely a replacement project which is Duke's  
13 position, but that there was a demonstration of  
14 greater than ordinary public benefits that would  
15 attach to the project.

16 MR. NAFICY: Okay, thank you.

17 Mr. Trump, you had some discussion about  
18 the 316(b) regulations and the best technology  
19 available standard, and you referred to a wholly  
20 disproportionate test?

21 MR. TRUMP: I recollect saying that,  
22 yes.

23 MR. NAFICY: And you also -- I recollect  
24 you saying that you tried to look up references to  
25 this wholly disproportionate test in BTA, and you

1 weren't able to find much guidance on that; is  
2 that true?

3 MR. TRUMP: My statement was in regards  
4 to the FSA, and when I searched for references to  
5 what BTA means, I could not find detailed  
6 description or language in the FSA that actually  
7 supported a high level summary conclusion in the  
8 FSA that dry cooling or alternative closed-cycle  
9 cooling would be feasible in Morro Bay.

10 MR. NAFICY: Is there -- I'm not really  
11 sure about the answer to this question, but is it  
12 Duke's testimony that in this case, alternative  
13 cooling as proposed by staff, would not be BTA?  
14 Is that Duke's position?

15 MR. TRUMP: I'm sorry, would you just  
16 repeat the question for me?

17 MR. NAFICY: Is it Duke's position that  
18 alternative cooling, air cooling or hybrid, is not  
19 BTA for this project?

20 MR. TRUMP: Our position is that the  
21 Regional Water Quality Control Board will not be  
22 capable of finding that alternative closed-cycle  
23 cooling system here at Morro Bay for this project  
24 as BTA.

25 MR. NAFICY: Well, beyond your



1 speculation about what they will or will not be  
2 able to find, does Duke have a position on this  
3 issue?

4 MR. TRUMP: Duke's internal position is  
5 that alternative closed-cycle cooling systems here  
6 at Morro Bay for our proposed project is not BTA.

7 MR. NAFICY: And why is that?

8 MR. TRUMP: There are a number of  
9 reasons. I'm qualified to answer some of those,  
10 or specifically one, which is we did not believe  
11 that the incremental additional cost associated  
12 with dry cooling, alternative closed-cycle cooling  
13 will, in fact, be found to be wholly  
14 disproportionate benefits, which is one of the  
15 requirements or tests, if you would, of the 316(b)  
16 statute.

17 MR. NAFICY: Now, are you familiar with  
18 instances where EPA has found that the technology  
19 was not BTA because the cost was wholly  
20 disproportionate?

21 MR. TRUMP: Again, would you just repeat  
22 the question.

23 MR. NAFICY: Okay. This wholly  
24 disproportionate test was sort of invented by the  
25 EPA. Are you familiar with any applications of

1       that test by the EPA to specific instances,  
2       specific projects?

3               MR. TRUMP: I don't have specifics.  
4       I've been advised by our counsel that there are  
5       many instances, and that they would be more  
6       qualified to address that question, in terms of  
7       specifics.

8               HEARING OFFICER FAY: Mr. Babak, it's  
9       almost noon; how much more do you have?

10              MR. NAFICY: I don't have a lot more. I  
11       have maybe another five or ten minutes.

12              HEARING OFFICER FAY: All right.

13              MR. NAFICY: The following questions  
14       will actually be addressed to Mr. Ortega.

15              First of all, Mr. Ortega, have you  
16       reviewed the testimony that was filed by Duke, the  
17       direct testimony on alternative cooling and then  
18       the rebuttal? Have you reviewed those?

19              MR. ORTEGA: What dates are those  
20       documents?

21              MR. NAFICY: Well, they've mostly been  
22       in May, and they were building up to the hearings  
23       here.

24              MR. ORTEGA: I have reviewed those  
25       aspects that relate to the alternative cooling,

1 yes.

2 MR. NAFICY: Okay. And did you provide  
3 information that was contained in those  
4 testimonies?

5 MR. ORTEGA: Yes, I did.

6 MR. NAFICY: And did -- Is there a place  
7 in here that I missed where the testimony contains  
8 reference to statements that you made earlier,  
9 that, in your opinion, dry cooling would not be  
10 feasible or desirable at this location? Is that  
11 testimony contained --

12 MR. ELLISON: Let me clarify your  
13 question. Are you asking -- Mr. Ortega has been  
14 listed as a support witness to the entire  
15 testimony from the day it was filed. The  
16 testimony clearly says that Duke's position is  
17 that this project is not feasible.

18 So are you asking him does Duke's  
19 testimony say that, or are you asking him whether  
20 that statement is attributed to him within the  
21 testimony?

22 MR. NAFICY: I'm asking him if, you  
23 know, if there's anywhere in the testimony that it  
24 says the vendor believes that dry cooling is not  
25 feasible in this site, or the vendor believes dry

1       cooling is not desirable at this site.

2               MR. ELLISON: I don't understand the  
3       relevance of this question. I mean, if what  
4       you're getting at, Mr. Naficy, is that somehow  
5       this is different, this is outside the scope of  
6       the direct or this is new or a surprise, which is  
7       where I think you're going with this, let me just  
8       respond right now and say that again, Mr. Ortega  
9       was identified as a support witness to this  
10      testimony from the outset. The testimony  
11      absolutely says all of the things that he  
12      testified. There is no surprise. I don't think  
13      it's a relevant question.

14             MR. NAFICY: Okay, Mr. Ellison, I mean,  
15      I appreciate that. But unless you want to object  
16      and we can have a ruling, it would be a lot  
17      quicker if we just keep moving.

18             MR. ELLISON: I am objecting.

19             MR. NAFICY: Okay. I'll move on.

20             Can you explain the basis for those two  
21      contentions, please, that it's not feasible and  
22      it's not recommended?

23             MR. ORTEGA: Yes. On the  
24      recommendation, whether Duke approaches us or  
25      other developers, we ascertain what parameters are

1 known on the site, and we try to guide the  
2 developer along the road to a cooling system that  
3 is most appropriate for a given site. One of the  
4 major and fundamental criteria is, is there water  
5 available for use in cooling.

6 The question we would ask is why would  
7 you use dry cooling if water is available? So  
8 fundamentally, wet cooling is far more efficient  
9 than dry cooling. So the recommendation would be  
10 to go, part of the answer is to make use of  
11 whatever water there is available for cooling. On  
12 the other side of that feasibility question is  
13 that the site constraints that have been made  
14 known with the arrangements being considered do  
15 not make this site applicable to the air-cooled  
16 condensers or 100 percent dry cooling.

17 MR. NAFICY: I'm sorry, could you just  
18 repeat what you just said? I didn't quite catch  
19 it, just the last sentence.

20 MR. ORTEGA: Okay. In terms of the  
21 feasibility of all dry cooling on this site, in my  
22 opinion this site does not have the available  
23 space to support a dry cooling system for this  
24 size combined-cycle power plant.

25 MR. NAFICY: By this size combined-cycle

1 power plant you mean, are you considering that  
2 1200 megawatt duct-fired power plant?

3 A That's correct. Let me provide a little  
4 more basis for that conclusion. I've looked at  
5 the last eight or ten air-cooled condensers that  
6 my company has supplied on combined-cycle plants.  
7 My understanding that most if not all of those  
8 units were sized on the basis of duct-firing.

9 Further, doing an analysis of the design  
10 criteria or design point specified for those  
11 projects where we supplied air-cooled condensers,  
12 the performance specified for each of those plants  
13 is far more aggressive than what Duke has offered  
14 or specified in this case for this plant.

15 What I'm saying here, if I could restate  
16 it, is that, in my opinion, the air-cooled  
17 condensers proposed by both the staff and Duke are  
18 largely undersized compared to the norm in the  
19 industry, if you go back over the past four or  
20 five years.

21 MR. NAFICY: Okay. I'm not sure how all  
22 of that is relevant, but let's take the water out  
23 of the equation. I mean, you just testified that  
24 if there's water available, you think that it  
25 should be used. But what if the water wasn't

1 available, you know, perhaps because there was a  
2 finding that the impact on marine resources is too  
3 great? If water was not available, would you  
4 change your recommendation?

5 MR. ORTEGA: No. My recommendation  
6 would stand, in that these air-cooled condensers,  
7 the arrangements being considered by the staff and  
8 Duke on this site are not suitable in that they  
9 provide either an economic or legal insufficiency  
10 to build.

11 If I can call out just one example, that  
12 existing PG&E substation. The proximity that the  
13 air-cooled condensers would have to be built next  
14 to that, while that substation was in operation,  
15 would bring on undue risk to my company, in terms  
16 of product liability, and, in my opinion, the  
17 contractor that would take on the liability of  
18 installing this type of equipment next to that  
19 station.

20 MR. NAFICY: You stated earlier that you  
21 thought, you mentioned wet cooling; did you mean  
22 wet cooling or once-through cooling?

23 MR. ORTEGA: Either one.

24 MR. NAFICY: Okay. And have you relied  
25 on Duke's economic analysis or legal analysis for

1 your conclusions, or are those your own?

2 MR. ORTEGA: No, these are my own. In  
3 my perspective of this plant, there was not a  
4 detailed analysis on the economics to come up with  
5 an air-cooled condenser sized to meet an economic  
6 model. It appears to me that the sizing was based  
7 on not exceeding the allowable limits of this  
8 steam turbine, and that -- and, therefore, in my  
9 opinion, the sizing proposed for this plant  
10 represents a relatively small air-cooled condenser  
11 versus this size of project, to the tune of more  
12 than 30 percent.

13 So, my opinion, and based on the  
14 industry standards that I can state over the past  
15 few years, these air-cooled condensers would  
16 normally be approximately 30 percent larger than  
17 presently quoted.

18 MR. NAFICY: They would be 30 percent  
19 larger if, what, if they were in the middle of the  
20 desert or if they were not in an urban setting, or  
21 if what?

22 MR. ORTEGA: Regardless of the ambient  
23 temperature, the industry, the trend in the  
24 industry has been to achieve a turbine exhaust  
25 pressure relative to the ambient temperature,



1 relating to a temperature difference of between 40  
2 and 45 degrees.

3 In this case, both the staff and Duke's  
4 specified performance is a more lenient  
5 temperature difference of about 60 degrees.

6 MR. NAFICY: I have one final question.  
7 You said something about air cooling -- or wet  
8 cooling is far more efficient than air cooling.  
9 What do you mean by that?

10 MR. ORTEGA: That is to say that the  
11 performance that can be delivered to the plant --  
12 specifically, the steam turbine -- is far more  
13 efficient and effective when using water for  
14 cooling as opposed to air for cooling.

15 MR. NAFICY: Can you quantify that? I  
16 mean, in terms of percentages, you know? Ten  
17 percent, 20 percent more efficient? Do you have  
18 any number in mind?

19 MR. ORTEGA: No. As an order of  
20 magnitude, for example, I could provide a number  
21 of design selections for Duke or any contractor to  
22 evaluate, and doing -- and based on different  
23 sizes, it's my opinion that an economic analysis  
24 would result in the use of a larger air-cooled  
25 condenser that's quoted.

1           But I don't want to focus only on that  
2           in my answer or statement of feasibility. The  
3           staff's air-cooled condensers, the two 25-cell  
4           units that are there, in my opinion, the site  
5           space limits are too severe to successfully  
6           implement and execute this project with all dry  
7           cooling.

8           MR. NAFICY: Okay. Nothing further.

9           HEARING OFFICER FAY: Okay. Thank you.

10          We will take a one-half hour break for  
11          lunch. Lunch is available in the next room, and  
12          we will return here at 12:40.

13          (Whereupon, at 12:15 p.m., the hearing  
14          was adjourned, to reconvene at 12:40  
15          p.m., this same day.)

16                       --oOo--

## 1 AFTERNOON SESSION

2 12:40 p.m.

3 HEARING OFFICER FAY: Okay. We are back  
4 on the record, and we are beginning with the City  
5 of Morro Bay's cross-examination of the Duke power  
6 panel's discussion about cooling options.

7 MR. ELIE: We need Mr. Curfman, Paul  
8 Curfman. I need you in your chair. Paul Curfman,  
9 Andy Trump.

10 While Mr. Curfman is getting situated,  
11 we have put back up that, Peter, that KOP 15 from  
12 rebuttal. The enlarged view of KOP 15 from the  
13 Duke rebuttal testimony that Mr. Naficy used in  
14 his cross.

15 Ready, Mr. Curfman?

## 16 CROSS-EXAMINATION

17 BY MR. ELIE:

18 Q Mr. Curfman, can the ACCs be mitigated  
19 with vegetation?

20 A No, I don't believe they fully can.

21 Q Why not?

22 A They occupy certain areas designated for  
23 landscaping, in particular, and they're so large  
24 that they will be visible above the expected  
25 height of any vegetation.

1           Q     Isn't it also accurate that the  
2     vegetation that would be able to partially screen  
3     would still essentially show the bulk of the ACC?

4           A     Yes.

5           Q     Let's look at the figure with regard to  
6     KOP 15 which Mr. Naficy showed you earlier.  It's  
7     part of exhibit 229, Duke's rebuttal testimony.  
8     Do you have that in front of you?

9           A     Number 15?

10          Q     Yeah, KOP 15, the enlarged view, which  
11     appears just before page 13.

12          A     Yes, I've got it.

13          Q     Okay.  Now, the top picture shows the  
14     project, as proposed by Duke and AFC, correct?

15          A     Yes.

16          Q     And the second picture is the CEC's  
17     five-by-five air condensers, and the third is what  
18     Duke believes really would need to be there, the  
19     eight-by-five?

20          A     Correct.

21          Q     Okay.  Would you agree with the  
22     following statement:  "The proposed ACC cooling  
23     facility looks quite different than the modernized  
24     plant itself, giving the impression that two  
25     independent industrial facilities have been

1 erected near Morro Rock"?

2 A Say your question again, please.

3 Q Sure. Would you agree with this  
4 statement: "The proposed ACC cooling facility  
5 looks quite different than the modernized plant  
6 itself, giving the impression that two independent  
7 industrial facilities have been erected near Morro  
8 Rock"?

9 A Yes.

10 Q Isn't it true that -- Strike that.  
11 Isn't it fair to say, then, that the viewer's eye,  
12 from a visual perspective, would be drawn to both  
13 the ACC and the stacks? Let me put it a different  
14 way. Wouldn't the stacks -- I'm sorry, let me try  
15 it again. Wouldn't the ACC add something that  
16 would draw the viewer's attention, immediately  
17 upon looking at the Rock, from this KOP?

18 A Absolutely.

19 MR. ELIE: That's all I have for  
20 Mr. Curfman.

21 Mr. Mantey? I think you're going to  
22 have to go up and sit where Mr. Curfman is,  
23 because the mobile mic isn't working.

24 BY MR. ELIE:

25 Q Mr. Mantey, you're Duke's noise expert

1 in this proceeding?

2 A Yes, I am.

3 Q Okay. Is it accurate that the existing  
4 plant was grandfathered in under the City of Morro  
5 Bay's noise element, the LORS of the City of Morro  
6 Bay, such that it is not actually subject to the  
7 LORS?

8 A That is my understanding.

9 Q And isn't it also accurate that the new,  
10 the modernized plant will need to comply with the  
11 1993 ordinance?

12 A That is how I interpret the Morro Bay  
13 noise element, yes.

14 Q Now, did you prepare the rebuttal  
15 testimony of Duke to Mr. Dohn's testimony, which I  
16 believe is part of exhibit 229?

17 A Yes, I did.

18 Q And that's one page, it has at the top  
19 Bill Dohn Testimony for City of Morro Bay. Is  
20 your critique of Mr. Dohn -- Well, could you  
21 summarize what your critique -- well, it's not  
22 even a real critique, what your comment is on  
23 Mr. Dohn's testimony.

24 A Let me get that in front of me.

25 Q Sure. Do you want me to give you my

1 copy, or do you have it?

2 A I was trying to make two points here.  
3 One is that, in principal, I was agreeing with  
4 Mr. Dohn in asking for a frequency band analysis,  
5 but in so concurring I was qualifying that in that  
6 such an analysis would be part of the full-scale  
7 evaluation of this kind of a project. And  
8 further, I don't believe that at this stage of the  
9 process it would be appropriate to go into that  
10 level of detail.

11 And that was backed up with the position  
12 that we did not feel that the staff had  
13 demonstrated a viable, from a noise standpoint a  
14 viable alternative with respect to alternative  
15 cooling; therefore, they hadn't gotten through  
16 that first wicket, and there was no need to go  
17 beyond that to a more detailed analysis.

18 Q So if I could be a little bit  
19 vernacular, it's a good idea, but we don't even  
20 get there.

21 A Yes.

22 MR. ELIE: Okay, thank you.

23 Mr. Poquette, I'm interested in your  
24 model a little bit, and to talk about what's  
25 there.

1 BY MR. ELIE:

2 Q The versions of the ACCs which have been  
3 presented in the model are based on staff's  
4 conceptual idea, correct?

5 A Two of them are.

6 Q Two of them are. And then there was the  
7 last one, which was Duke's.

8 A Duke's.

9 Q Right, okay. Is it -- And what's the  
10 approximate height of the largest one that staff  
11 has listed, the noise-mitigated one?

12 A Approximately 115 feet.

13 Q A hundred a fifteen feet, so about 30  
14 feet lower than the stacks.

15 A Yes.

16 Q Okay. Is it accurate to state that the  
17 lower the ACC units would be, the wider or longer  
18 they would need to be in order to accomplish their  
19 objectives?

20 A Yes.

21 Q Without obviously having the vendor  
22 actually provide the specific price for the unit  
23 that might someday, if I suppose be imposed on  
24 this project, what's the approximate cost of just  
25 the units from GEA on the seven-by-fives proposed



1 by staff?

2 A I don't have a price for the seven-by-  
3 five.

4 Q Do you have one for the eight-by-five?

5 A Yes, the eight-by-five is referred to in  
6 our testimony on page 46, and that equipment cost  
7 that we have quoted there is a little over \$40  
8 million for the equipment only.

9 Q What other costs would GEA add on to  
10 have to construct, help you construct these?

11 A There are two components from GEA, one  
12 of which I'll have to let Mr. Ortega address. But  
13 the one that we're aware of is the erection cost,  
14 which in a union environment, is approximately  
15 half of the equipment cost or approximately  
16 another \$20 million.

17 MR. ELIE: Mr. Ortega, could you answer  
18 the -- complete the answer?

19 MR. ORTEGA: Yes. When we submit a  
20 proposal, what we do is we also include what we  
21 call a base scope and supply. This includes the  
22 air-cooled condenser itself from the structure up,  
23 it includes a reasonable amount of steam ducting  
24 and piping, and it includes all the auxiliaries.

25 What is typically found is that as the

1 project goes forward, there are many items that  
2 are added, things that could be supplied either by  
3 a contractor or by us, and these things could be  
4 painting or galvanizing of the steel structure, it  
5 could be modifications to the steam ducting to  
6 accommodate obstructions or rerouting to suit the  
7 plant. Could include maintenance features for  
8 removal and replacement of air-moving systems --  
9 fans, gears, motors, stuff like that. Could  
10 include stuff like spare parts and some commercial  
11 items like import duties.

12 We could see a change or an increase in  
13 price that could be along the order of ten  
14 percent, from what was quoted in the base scope  
15 and supply. That's on the delivered equipment.  
16 BY MR. ELIE:

17 Q So could you ballpark for the eight-by-  
18 fives what GEA's cost to Duke would be for all  
19 those things you just mentioned, plus the ACCs?

20 A I would say it could be a couple, two,  
21 three million dollars per unit, while I would say  
22 between four and five million dollars would be  
23 likely.

24 Q So if this were a feasible project, this  
25 could be a revenue source to GEA Of something

1 close to \$50 million?

2 A Yes.

3 Q But arroyo not recommending that it be  
4 done.

5 A I'm not recommending it because of the  
6 constraints and limits on this unit.

7 MR. ELIE: Thank you.

8 BY MR. ELIE:

9 Q Mr. Poquette, are there additional costs  
10 that you haven't mentioned that Duke would incur  
11 having to build the ACC?

12 A Yes.

13 Q Ballpark those for us.

14 A Well, again, on page 46 of our  
15 testimony, we have again reiterated previous  
16 costs. There are preparation costs that we've  
17 estimated to be about \$25 million. That deals  
18 with everything from the additional steam ducting  
19 we have estimated that Mr. Ortega referred to, to  
20 the piles that have to be placed in the ground,  
21 site preparation work, the overall pile cap piers,  
22 etc., plus the additional post-erection work,  
23 where we tie in electrical piping, etc. to the  
24 balance of the ACCs.

25 In addition to that we have site

1 constraint costs that we've estimated at about \$20  
2 million, one of which, as we've talked about with  
3 the model, would be the undergrounding of the  
4 transmission lines. Those are direct costs.

5 And then, of course, there are a number  
6 of items that we have not estimated that we stated  
7 earlier this morning by Duke.

8 MR. ELIE: Thank you.

9 BY MR. ELIE:

10 Q Mr. Trump, some of the staff testimony  
11 deals with the hybrid and the, I want to  
12 specifically address the water source issue. Are  
13 you aware of anyone approaching the Cayuca  
14 Sanitary District, which is the co-owner of the  
15 wastewater treatment plant?

16 A I'm sorry, approaching them for what  
17 purpose?

18 Q To see if they would even consider  
19 allowing the use of their portion of the water in  
20 the wastewater treatment plant?

21 A I'm not aware of any inquiry by any  
22 party.

23 Q Last, Mr. Trump, I want to ask you a few  
24 questions about the project as proposed in  
25 general, and contrasting it with the ACC as staff

1 has listed it. The AFC that is presently proposed  
2 is not the first AFC, correct?

3 A That's correct.

4 Q And, in fact, the original AFC was  
5 withdrawn after there was some community  
6 discussion on the issue?

7 A That's correct.

8 Q Isn't it true that one of the selling  
9 points, if you will, to the City to support part  
10 of this project was the construction schedule now  
11 proposed by Duke and the AFC?

12 A That's correct. The length of the  
13 construction period was of great importance to  
14 various representatives of the City, and that  
15 interest in there was actually, the consequence of  
16 that was a shortening -- twice, actually -- of the  
17 construction schedule.

18 Q As I remember it, the original  
19 construction schedule as proposed was more than a  
20 year -- Well, what is the construction schedule  
21 now and what was it proposed originally?

22 A Well, I should be precise. They  
23 shortened the overall length of the project, which  
24 includes the construction of the new plant, the  
25 new power blocks, the demolition of the existing

1 power building, so it's the entire length of that.  
2 And we shortened that twice. It was as high as  
3 seven years, was subsequently revised at and is  
4 currently proposed at 21 months for construction,  
5 three months for some mobilization, and 36 months  
6 for demo of the existing power plant.

7 Q Which leads to my next question, which  
8 is wasn't that demolition also a significant  
9 consideration by the elected leaders of the City  
10 of Morro Bay? In other words, isn't it true that  
11 the City Council expressed that part of the  
12 selling point of the proposed plant was that the  
13 old plant would be torn down?

14 A Very much so.

15 Q And you are aware of the resolutions of  
16 both of the Planning Commission and the City  
17 Council that support the plant as, or would not  
18 support the plant with dry cooling?

19 A I'm aware of those resolutions, yes.

20 Q And that's indicated in your testimony.  
21 Is it your view that the dry cooling as  
22 proposed by staff is consistent with the  
23 memorandum of understanding between the City and  
24 Duke?

25 A To the extent that it resulted in an

1       infeasible project that will never, that could not  
2       be done, I think it's grossly inconsistent with  
3       the MOU.

4           Q       Would it also be inconsistent, in light  
5       of the expressed preference of the City leaders  
6       that dry cooling not be installed at the plant?

7           A       It's inconsistent with numerous requests  
8       and recitals in the MOU regarding objectives of  
9       the City in seeking and having MOU with Duke.

10           MR. ELIE:   That's all the questions I  
11       have.

12           HEARING OFFICER FAY:   Thank you.

13           Mr. Ellison, redirect?

14           MR. ELLISON:   Thank you.

15                   REDIRECT EXAMINATION

16       BY MR. ELLISON:

17           Q       First, Mr. Poquette, staff counsel asked  
18       you some questions about staff's reliance on  
19       design parameters for the ACC system provided by  
20       Duke Fluor/Daniel.   Do you recall those questions?

21           A       Yes, I do.

22           Q       First of all, from the original filing  
23       of the AFC until now, has Duke changed the design  
24       parameters for the project?

25           A       No, we have not.

1           Q     When you provided the first order design  
2     parameters for the ACC system to Mr. Henneforth --  
3     Well, first of all, did you do that in writing?

4           A     Yes.

5           Q     And did you in writing at that time  
6     caution him that the ACC parameters might be  
7     undersized for the project?

8           A     Yes.

9           Q     Could you identify that communication  
10    and read that cautionary note, please.

11          A     Yes. This is from the e-mail that I  
12    sent to Jim on the 20th of September, and  
13    beginning at the last sentence of the first  
14    paragraph, it says, "We did not set up our data in  
15    the same format that you requested, so we recast  
16    it and provided data that we had sent to the  
17    vendor. The approach we took was to provide the  
18    vendor with data that would facilitate a quick  
19    response, and provide us with a configuration that  
20    would be conservative, parenthetically, on the  
21    small side, so we could obtain a size.

22                "We then used that information to  
23    perform an intuitive analysis to assess the  
24    additional impacts and constraints,  
25    parenthetically, land use, visual noise,



1 emissions, power loss, etc., associated with the  
2 cooling alternatives based on our experience. At  
3 some point there may be a need to perform a  
4 refined detailed analysis that addresses the max  
5 back pressure that the turbines can operate at,  
6 final configurations, etc.

7 "Our expectation is that in either the  
8 dry cooling or hybrid case, the final design will  
9 result in larger units which only further impacts  
10 the situation. In any event, the data presented  
11 below is what was provided to the vendor."

12 Q Subsequent to providing that  
13 information, when you learned that staff was using  
14 those parameters, did Duke again point out to  
15 staff that these would not support Duke's project  
16 design?

17 A Yes. In our January 7th report, our  
18 February 15th report, and during the March 20th  
19 workshop.

20 Q Did Duke at any time, to your knowledge,  
21 ever tell staff that these were appropriate for  
22 the use that staff was putting them to, in other  
23 words, to meet the design objectives of this  
24 project?

25 A No.

1 MR. ELIE: Now I'd like to turn to  
2 Mr. Trump.

3 BY MR. ELLISON:

4 Q Mr. Trump, CAPE's attorney asked you  
5 whether Duke had done an economic feasibility  
6 analysis for the project with dry cooling, and you  
7 responded no; do you recall that?

8 A I do.

9 Q Could you explain -- Well, let me ask  
10 this. Was it necessary to do an economic  
11 feasibility analysis in order to form an opinion  
12 about the economic feasibility of dry cooling at  
13 the site?

14 A No, not at all. It was necessary to  
15 understand the incremental capital costs and  
16 incremental and operating maintenance and  
17 efficiency costs, but it was not necessary to do a  
18 separate analysis.

19 Q Do you have an opinion regarding the  
20 economic feasibility of the project with dry  
21 cooling and, if so, what is it based on?

22 A I do have an opinion, and it's a very  
23 strong one, which is the opposed dry cooling and  
24 alternative closed-cycle cooling as described in  
25 the FSA and Duke's testimony is, in fact -- are,

1 in fact, infeasible from an economic perspective.

2 The basis of my conclusion is my own  
3 professional experience and judgment. It's based  
4 upon analysis that has been performed on the base  
5 project. It's based upon dozens and dozens of  
6 conversations with senior management, with lower  
7 level management at Duke Energy. It's based upon  
8 discussions with Duke Fluor/Daniel, and it's based  
9 upon discussions and lengthy meetings around this  
10 issue.

11 And it's unanimous that these types of  
12 costs are infeasible at this site.

13 Q So to sum up, is it fair to say that you  
14 did not need to do a formal economic feasibility  
15 analysis because the capital costs of dry cooling  
16 at this site are so high that you know the answer  
17 without having to go to that level of detail?

18 A Well, that's correct. I also would add  
19 to the capital costs the ongoing operation and  
20 maintenance costs as well, which add approximately  
21 an additional \$40 to \$50 million, so yes.

22 MR. ELLISON: Okay.

23 BY MR. ELLISON:

24 Q Lastly, Mr. Curfman, you were asked by  
25 CAPE's counsel some questions regarding a

1 statement about whether the use of a model such as  
2 here was deceptive; do you recall those questions?

3 A Yes, I do.

4 Q And you were specifically asked whether  
5 you had made a statement of that nature; do you  
6 recall that?

7 A Yes.

8 Q And you replied no, correct?

9 A Correct.

10 Q Do you recall a statement of that nature  
11 being made by your colleague, Mr. Blau?

12 A I do.

13 Q And could you explain what you recall  
14 Mr. Blau having said?

15 A I believe he said something to the  
16 effect that he didn't feel a model was appropriate  
17 to portray the project in the context of the City  
18 of Morro Bay, for the purposes of visual analysis.

19 Q Did you understand Mr. Blau to be  
20 addressing the appropriateness of using a model to  
21 discuss issues other than the visual appearance of  
22 the project in the context of the larger City of  
23 Morro Bay?

24 A No, I don't.

25 Q And specifically, did you understand him

1 to be addressing in any way the appropriateness of  
2 using a model for showing constructability issues  
3 and things of that nature?

4 A No.

5 MR. ELLISON: That's all I have, thank  
6 you.

7 HEARING OFFICER FAY: Okay, thank you.

8 Any recross, limited to the scope of  
9 Mr. Ellison's?

10 MS. HOLMES: Yes, I do.

11 HEARING OFFICER FAY: Go ahead.

12 MS. HOLMES: I'd like to turn to  
13 exhibit 168 and ask Mr. Poquette a couple of  
14 questions. This has to do with the discussion  
15 about the design parameters that were promoted by  
16 Duke to staff.

17 MR. POQUETTE: Yes.

18 RECROSS-EXAMINATION

19 BY MS. HOLMES:

20 Q Mr. Poquette, you read from an e-mail  
21 that you sent to Mr. Henneforth on the 20th of  
22 September; is that correct?

23 A That's correct.

24 Q And was that in response to an earlier  
25 e-mail of Mr. Henneforth's on the 10th of

1 September?

2 A Yes.

3 Q And isn't it, in fact, true that that  
4 e-mail says that he is requesting criteria for use  
5 in the cooling alternative analysis for Morro Bay,  
6 and that your response was in response to that  
7 request? If you'd like, you can read it into the  
8 record.

9 A I've got it. "Russ, attached to the  
10 information request for criteria to be used in the  
11 cooling alternative analysis for Morro Bay, if you  
12 have any additions, please feel free to add them.  
13 I intend to use the data in requesting information  
14 from the vendors and estimating impacts on plant  
15 operations." That's what -- That's the e-mail.

16 MS. HOLMES: Thank you. Those are all  
17 my questions.

18 MR. POQUETTE: Okay.

19 HEARING OFFICER FAY: Okay. Mr. Naficy?

20 MR. NAFICY: I have a question. I'm  
21 going to 'fess up front that it's not truly  
22 recross, but it's, I think, a germane question.  
23 And if people want to object to it and not allow  
24 the answer, then I'll just live with that.

25 HEARING OFFICER FAY: Go ahead.

## 1 RECROSS-EXAMINATION

2 BY MR. NAFICY:

3 Q The question I neglected to ask,  
4 Mr. Ortega, is if GEA is currently involved in any  
5 kind of business relationship with Duke.

6 HEARING OFFICER FAY: We'll allow the  
7 question.

8 MR. ORTEGA: Currently GEA is under  
9 contract to supply and install an air-cooled  
10 condenser system consisting of two units at the  
11 Moapa power plant. Aside from that, the last  
12 contract that GEA entered into with Duke  
13 Fluor/Daniel was approximately ten years previous  
14 on a cooling tower drop.

15 So other than the ongoing projects, we  
16 only are involved to the extent of supporting Duke  
17 Energy in the development of several project sites  
18 in the country around their standard, 600-megawatt  
19 combined-cycle power block.

20 MR. NAFICY: Thank you.

21 HEARING OFFICER FAY: And the City?

22 MR. ELIE: Nothing.

23 HEARING OFFICER FAY: Okay. Anything  
24 further, Mr. Ellison?

25 MR. ELLISON: No.

1 HEARING OFFICER FAY: All right. Then  
2 we'll move to staff's presentation.

3 MS. HOLMES: That's correct. I had a  
4 couple of questions. Perhaps if we could go off  
5 the record just so I can arrange this.

6 HEARING OFFICER FAY: Okay. Let's go  
7 off the record.

8 (Brief recess.)

9 HEARING OFFICER FAY: We're back on the  
10 record.

11 MS. HOLMES: Thank you. I'd like to  
12 take things a little bit out of order and begin by  
13 getting a couple of exhibits marked.

14 HEARING OFFICER FAY: Okay. Can we --  
15 How about getting the witnesses sworn while --

16 MS. HOLMES: Well, the reason that I  
17 said that is that I need to know whether or not I  
18 need to swear in another witness.

19 HEARING OFFICER FAY: Okay.

20 MS. HOLMES: We've got, specifically,  
21 there was a document that was docketed and mailed  
22 out on the 28th of May entitled Morro Bay Project  
23 Ambient Air Temperature Study. It's a compilation  
24 of temperature data that was presented in the AFC,  
25 and I had asked the air quality witness, who



1 didn't need to appear today, to basically provide  
2 I guess you'd call it some statistics, some tables  
3 showing how often certain temperatures occurred in  
4 Morro Bay.

5 He's not available, but the project  
6 manager is available to specify that it was  
7 prepared under his direction, if we need to do  
8 that. On the other hand, if there are no  
9 questions or concerns about it coming in, since  
10 it's data that was contained in the AFC, then we  
11 can excuse the project manager from the list of  
12 people that need to be sworn.

13 HEARING OFFICER FAY: I don't know. If  
14 you have any -- Are you asking if Duke has  
15 questions on this?

16 MS. HOLMES: I'm asking if anybody has  
17 an objection to this not coming in as sworn  
18 testimony, since it's data that was presented in  
19 the AFC. But if people are concerned about it and  
20 want it to come in as sworn testimony, then we  
21 need to add another witness to the panel.

22 HEARING OFFICER FAY: Okay. Response,  
23 Mr. Ellison?

24 MR. ELLISON: We have no objection. We  
25 would stipulate.

1 HEARING OFFICER FAY: Response from any  
2 other party?

3 MR. ELIE: No objection.

4 MS. HOLMES: I'm sorry, I didn't mean it  
5 to be that complicated.

6 HEARING OFFICER FAY: And it's all  
7 contained in the AFC.

8 MS. HOLMES: The data is, and what we  
9 did was put together an explanation of how often  
10 certain temperatures occur.

11 HEARING OFFICER FAY: Okay.

12 MS. HOLMES: It's from the net files  
13 that come in for air quality.

14 HEARING OFFICER FAY: Right.

15 MS. HOLMES: Could I get an exhibit  
16 number for that, please.

17 HEARING OFFICER FAY: Yes. That will be  
18 exhibit 230.

19 MS. HOLMES: Thank you.

20 And then we can proceed with the  
21 witnesses. We have Susan Lee and Jim Henneforth,  
22 Michael Clayton, Mark Hamblin, Sue Walker, Jim  
23 Buntin, Andrea Erichsen, and Dick Anderson. And I  
24 believe some of them, I don't know which ones,  
25 need to be sworn. Actually, perhaps they've all

1       been sworn already in this proceeding.

2               HEARING OFFICER FAY:   Can you all  
3       confirm that?   Is there any doubt?

4               All right.

5       Whereupon,

6               SUSAN LEE, JIM HENNEFORTH, MICHAEL CLAYTON,

7               MARK HAMBLIN, SUE WALKER, JIM BUNTIN,

8               ANDREA ERICHSEN, and DICK ANDERSON

9       Were called as previously duly sworn witnesses and  
10      were examined and testified as follows:

11              HEARING OFFICER FAY:   You all remain  
12      under oath.

13              MS. HOLMES:   Thank you.   I have one  
14      other exhibit, in addition to 197 and 198 that  
15      have already been identified, that we will be  
16      discussing.

17              Earlier this morning I mentioned that we  
18      had failed to file a discussion on the visual  
19      analysis of staff's testimony with respect to the  
20      noise-mitigated design, and that's been provided  
21      to the parties and is at the back of the room, and  
22      I'd like to have that be given an exhibit number.

23              HEARING OFFICER FAY:   That will be  
24      exhibit 231, and would you name it, please.

25              MS. HOLMES:   The heading on it is Morro

1 Bay Cooling System Modifications, Visual Analysis,  
2 Michael Clayton, 4/4/02. That's the date that it  
3 was provided.

4 HEARING OFFICER FAY: Thank you.

5 MS. HOLMES: Thank you. I think I'll  
6 just direct my questions to Ms. Lee.

7 DIRECT EXAMINATION

8 BY MS. HOLMES:

9 Q Ms. Lee, was the cooling options  
10 testimony, portions of exhibits 197, 198, 230 and  
11 231 prepared by you or under your direction?

12 A Yes.

13 Q And the statements of qualifications of  
14 the witnesses have been provided, either earlier  
15 in this proceeding or in exhibit 197?

16 A Yes, they are.

17 Q And are the facts contained in this  
18 testimony true and correct, to the best of your  
19 knowledge?

20 A Yes, they are.

21 Q And do the opinions represent your best  
22 professional judgment?

23 A Yes.

24 MS. HOLMES: And I believe we have two  
25 corrections that we need to walk through very

1 quickly. I believe there is a correction in the  
2 visual testimony.

3 BY MS. HOLMES:

4 Q Mr. Clayton, could you please explain  
5 what that is.

6 A Yes. In the rebuttal testimony on page  
7 24 and page 25 there is a reference to condition  
8 of certification Vis-3, and that should read Vis-2  
9 on both of those pages. And that's all.

10 MS. HOLMES: Thank you.

11 BY MS. HOLMES:

12 Q And, Mr. Henneforth, do you also have a  
13 correction to make?

14 A Yes, I do. In I believe it's rebuttal  
15 comments to Duke's testimony, I had taken a look  
16 at their capital costs relative to equipment and  
17 concluded that the direct equipment costs were  
18 high, and compared that with the information that  
19 I had received, even though our costs were for  
20 smaller systems, and erroneously assumed that  
21 their costs was for a single unit as opposed to  
22 two units.

23 It doesn't change any of the  
24 conclusions, but the statement I believe that's on  
25 page 14 of the rebuttal, third paragraph, really

1 doesn't apply.

2 MS. HOLMES: Thank you.

3 BY MS. HOLMES:

4 Q And with those corrections, Ms. Lee, is  
5 this testimony being adopted as staff's testimony  
6 today?

7 A Yes, it is.

8 Q Thank you.

9 MS. HOLMES: What I'd like to do is to  
10 have -- give sequential summaries for each of the  
11 different people that prepared a portion.

12 We'll begin with Ms. Lee, who was  
13 responsible for the overall preparation.

14 MS. LEE: Thank you. The cooling  
15 options report was prepared for two major reasons:  
16 First, the FSA had identified significant impacts  
17 to aquatic biological resources, so mitigation  
18 options needed to be evaluated for the CEQA  
19 analysis. The second reason was that the Regional  
20 Water Quality Control Board needed information on  
21 technology alternatives as part of its cooling  
22 water intake assessment.

23 The cooling options report describes  
24 three technologies: first, dry cooling, and it  
25 looks at two locations on the plant site, and for

1 each of those locations also looks at a noise-  
2 mitigated design; the second technology is hybrid  
3 cooling, again at the same two locations and with  
4 noise-mitigated design; and the third technology  
5 that's evaluated is the aquatic filter barrier,  
6 which has been proposed by Duke to be used with  
7 once-through cooling.

8 The purpose of the report itself was  
9 first to determine whether these cooling options  
10 were feasible, and second, then to evaluate what  
11 the potential environmental and engineering  
12 impacts might be. The report presents conceptual  
13 designs for dry and hybrid cooling, and describes  
14 the aquatic filter barrier as proposed by Duke.  
15 Then impact analysis is presented in each of the  
16 disciplines that was presented in the FSA.

17 And with that, I will hand it to Jim  
18 Henneforth to describe the design issues.

19 MR. HENNEFORTH: Okay. The summarizing  
20 of my testimony, I prepared the technical review  
21 of the staff report on the Morro Bay cooling  
22 alternative analysis. My testimony is essentially  
23 presented in section three of the staff report.  
24 It was our goal to look at this objectively, and  
25 look at the alternatives that might exist for a

1       once-through cooling system.

2               It really wasn't our intent to try to  
3       design the system, but to determine if an  
4       alternate cooling system would be feasible at the  
5       site. The standing has recognized our work as  
6       conceptual, and it expected that if adopted,  
7       further refinement would be done, optimizations,  
8       looking at final design features. That we believe  
9       would be the responsibility of the applicant.

10              We also recognize that alternative  
11       cooling systems, while resolving some of the  
12       concerns of the project, would have other impacts,  
13       both environmental and technical. And in my  
14       testimony I addressed the technical impacts and  
15       tried to assess them and quantify them where  
16       possible. These included derating for the  
17       capacity, decreased efficiency, use of additional  
18       space, incorporation of the structure by trying to  
19       identify the size, how large they'd be,  
20       identifying noise, and additional cost.

21              To some degree, staff was doing a  
22       performance analysis because original assessments  
23       performed by the applicant did not appear to us to  
24       be objective in an overall sense. So we felt that  
25       an independent look at the alternatives was



1 justified, and that was our, has been our  
2 motivation.

3 Recognizing that there is a potential  
4 for controversy in this issue, it is believed that  
5 it would be helpful if the staff and the applicant  
6 could agree at least on the design criteria to be  
7 used. Therefore, I had discussions with the  
8 applicant, explained that that's what our  
9 objective was, and that we would like to try to  
10 reach agreement on the design criteria. We've  
11 talked about this already, and the documentation  
12 of the discussion is in both the record of  
13 telephone conversation that I prepared as well as  
14 e-mails.

15 In preparing that, I did prepare a table  
16 that's been referred to, and which I asked the  
17 applicant to fill out the recommended design  
18 criteria. I requested specific information for  
19 three situations: summer conditions, winter  
20 conditions, and standard design conditions. The  
21 applicant's response was, as I stated before, was  
22 to come back with a single design point, which I  
23 looked at and it appeared to be very close to the  
24 average annual maximum temperature at the site.  
25 And my evaluation was that it appeared to be a

1 reasonable point at which to conduct the analysis.

2           Therefore, we proceeded to use this as a  
3 basis for our assessment, and as the design and  
4 operating point. It's normal in power plants to  
5 pick a point for design, and then further either  
6 optimize or expect that the plant performance  
7 would be different at other conditions, and that  
8 other enhancements could be evaluated to determine  
9 if they were justifiable, either economically or  
10 environmentally, and within the physical  
11 constraints of the project.

12           The applicant appeared to take a  
13 different approach, came back later and stated  
14 that it was their intent to maintain the 1200-  
15 megawatt capacity of the plant during all times of  
16 the year, through a complete range of temperatures  
17 up to 85 degrees. Normally, when we design a  
18 combined-cycle plant, the idea is to maximize  
19 plant efficiency, and this is done by recovering  
20 the waste energy that comes off the combustion  
21 turbines in the form of heat, creating steam and  
22 balancing the steam turbine to those conditions.  
23 This is the most efficient operation of the plant,  
24 and typically modifications to that condition by  
25 adding more fuel would erode the efficiency.

1           As with most plants, combined-cycles are  
2   sensitive to changes in ambient conditions,  
3   especially temperature; therefore, to maintain the  
4   output of the plant at an elevated temperature, it  
5   is common to add systems to try to recover those  
6   losses. These enhancements include adding coolers  
7   to the inland combustion turbines, either  
8   evaporative coolers or refrigeration, in addition  
9   to additional duct-firing in the combustion  
10  turbine exhaust.

11           The second approach in this case attacks  
12  the size of the cooling requirements of the plant,  
13  and the enhancements must generally consider a  
14  balance between the design limits of the plant,  
15  site conditions and restrictions, cost benefit  
16  assessments, and environmental impacts. The  
17  applicant has raised a point about differences of  
18  efficiency losses by going to the different  
19  cooling systems. And let me just point out that  
20  our assessment of this is that it's in the range  
21  of one percent loss by going to an air-cooled  
22  condenser. I believe they came up with 1.5  
23  percent, and I believe Tetrattech's assessment was,  
24  like, 1.6.

25           It's our belief that these values are

1 relatively small changes in deficiency. The  
2 applicant's insistence to maintain 1200 megawatts  
3 up to 85 degrees Fahrenheit using duct-firing has  
4 really set an extreme requirement on the cooling  
5 systems. And it's particular extreme considering  
6 the very rare times that this condition exists at  
7 the site.

8           Going to meteorological data, which was  
9 just -- which referred to, it appears that the  
10 ambient condition temperature of 84 degrees is  
11 exceeded less than .05 percent, and the applicant  
12 has stated that 74 degrees is exceeded less than  
13 one percent. The impact of this extreme condition  
14 on the alternative cooling system ends up  
15 apparently to double the size of the system.

16           Staff, using the more reasonable design  
17 point that we feel is 64 degrees, is closer to the  
18 average annual temperature, and then by using this  
19 point for design, the plant is able to perform and  
20 essentially maintain output of about 1,000  
21 megawatts, as the existing plant now produces.

22           This doesn't really automatically  
23 prohibit the applicant from evaluating the  
24 addition of duct-firing and properly optimizing  
25 the use of this enhancement, as long as the

1 appropriate design criteria are taken into  
2 consideration.

3 And staff was also asked to look at what  
4 would be required to fire the plant up to 1200  
5 megawatts. And it occurred to us that to add  
6 sufficient duct-firing to reach that point,  
7 average 64-degree ambient conditions, would  
8 require about 40 percent more speed. And which  
9 would roughly increase the size of the ACC unit by  
10 the same amount. And we feel that, in looking at  
11 the space available at the site, that an ACC using  
12 basically 40 percent more size could fit into the  
13 space available.

14 The applicant raised concerns about  
15 constructability and access for operations. In  
16 reviewing these issues, we do acknowledge that  
17 there would need to be proper planning and  
18 scheduling to do the work, and that's not uncommon  
19 in dealing with sites that have constraints.  
20 These type of constraints are often dealt with.  
21 There are sites that actually have greater  
22 constraints than what exist here where expansions  
23 are done, and if the sequence of work is done  
24 properly, it can be accomplished.

25 Using, again, the design criteria that

1 we were provided, we developed cost information.  
2 We took that criteria to GEA, who provided us with  
3 capital costs which were used in preparing a cost  
4 estimate that was done under my direction. And  
5 the details of the cost estimate have been  
6 provided in our testimony.

7 There is a wide discrepancy between what  
8 was prepared by the applicant and what we have  
9 prepared, and generally we feel that a lot of the  
10 numbers provided by the applicant tend to be  
11 overstated, when you consider some of the impacts  
12 that they pointed out.

13 In conclusion, the ACC systems, the air-  
14 cooled condenser systems, have been constructed  
15 all over the world. They've been constructed in  
16 environments that are harsher than what we have  
17 here, with site constraints which are more  
18 difficult, and our analysis concludes that the  
19 conceptual designs that we looked at, from a  
20 configuration performance standpoint and cost, are  
21 reasonable, feasible, and could be accomplished  
22 here at the Morro Bay site.

23 MS. HOLMES: Thank you. I don't know  
24 which of the witnesses wishes to go next who has a  
25 summary, I believe, that noise, visual, and land

1 use are all prepared to proceed. So whichever one  
2 of you wishes to go first.

3 MR. HAMBLIN: Hi, Mark Hamblin. I also  
4 have Sue Walker with me. We prepared the summary  
5 for the land use testimony, and I'll have three  
6 big picture items that I'll just identify, in  
7 consideration of time.

8 Point one, in review of all information,  
9 staff concludes that California Energy Commission,  
10 under the Warren-Alquist Act, and the California  
11 Coastal Commission, under their Coastal Act, will  
12 have the ultimate decision in determining the  
13 project's consistency and not the staff.

14 Point two, the City of Morro Bay, in  
15 their adopted certified local coastal program,  
16 specifically policy 01, incorporated Public  
17 Resources Codes 3263 through 3310 of the Coastal  
18 Act, which incorporated specifically section 3264,  
19 which pertains to thermal electric generating  
20 plants. This identifies that the Coastal  
21 Commission will determine the consistency of the  
22 project with the Coastal Act. This is similar to  
23 what staff was mentioning in its first point one.

24 Point three, the applicant has  
25 identified in their rebuttal to staff's response

1 questions of an override being required in the  
2 Energy Commission staff would conclude that an  
3 override requiring any sort of pending review,  
4 staff would conclude that an override is premature  
5 and can't be done, pending the submittal of the  
6 Coastal Commission's required consistency report,  
7 under section 3413. And also, the fact that it's  
8 the Energy Commission that will consider and  
9 conclude the override of the Warren-Alquist Act  
10 and not the staff. And this would conclude  
11 staff's three points.

12 MS. HOLMES: Okay.

13 MR. CLAYTON: My name is Michael  
14 Clayton. I prepared the visual analysis for CEC  
15 staff.

16 We conducted a visual analysis of each  
17 of the four cooling options against a base line  
18 established by the existing power plant. Similar  
19 to the proposed project, we found that the cooling  
20 options would cause significant visual impacts as  
21 viewed from three of the key viewpoints, 5, 6, and  
22 7.

23 All other viewpoints, the resulting  
24 impact will be similar to the proposed project,  
25 which would be a beneficial impact. That includes



1 the views of Morro Rock, KOP 8 also, KOPs 14 and  
2 15 up in the residential hillside areas, and the  
3 other viewpoints identified around the project  
4 site.

5 For KOPs 5, 6, and 7, it should be  
6 pointed out that much of the adverse visual impact  
7 that results when viewed from those locations is  
8 attributable to the power generation facilities,  
9 which are also part of the proposed project. And  
10 similar to the proposed project, staff concluded  
11 that the visual impacts that would be experienced  
12 in 5, 6, and 7, KOPs 5, 6, and 7 would  
13 substantially be mitigated through implementation,  
14 effective implementation of condition of  
15 certification Vis-2.

16 In our conclusion of the dry cooling  
17 analysis, we also provided a ranking of the  
18 proposed project and alternatives, and given the  
19 additional structures that would be required with  
20 the various cooling options, our conclusion is  
21 that the proposed project would create the least  
22 amount of visual impact, and that was the  
23 preferred scenario, in terms of development.

24 MS. HOLMES: And last, but not least?

25 MR. BUNTIN: Thank you, yes. I'm Jim

1 Buntin, and I prepared the noise analysis.

2 And let me summarize by saying that the  
3 staff noise analysis has been an innovative  
4 process. It began with a standard base case set  
5 of fans, had two other quieter fan configurations,  
6 and then finally the super low-noise fans.

7 We presented those numbers in a  
8 preliminary staff assessment, I believe, or in a  
9 draft document in a workshop. The applicant  
10 suggested that other items be incorporated in that  
11 analysis and it was then revised to incorporate  
12 those changes.

13 And just giving you where we were with  
14 the FSA, the FSA we found the cumulative noise  
15 levels for the dry cooling alternatives one and  
16 two would be less than significant. For the  
17 hybrid cooling systems, the FSA analysis indicated  
18 the cumulative noise levels for the noise-  
19 mitigated configuration would be potentially  
20 significant, due primarily to the noise produced  
21 by the cooling water pumps. We felt that the  
22 cooling water pump noise could be feasibly  
23 mitigated, so the cumulative noise levels for  
24 those alternatives, the hybrids, would be less  
25 than significant.

1           The applicant subsequently raised  
2       concerns about staff assumptions for referenced  
3       noise levels. They were concerned about  
4       shielding, and they were concerned about what  
5       appeared to be inaccurate addition and  
6       subtraction. The City of Morro Bay expressed  
7       concerns about the possibility of fans producing  
8       low-frequency components, beeps, or other pure  
9       tones.

10           So in rebuttal, staff addressed those  
11       concerns. I'll take the simplest first. With  
12       regard to mathematical errors, I was in the  
13       spreadsheet working to a tenth of a db, and then  
14       we rounded to one decibel, so sometimes it looked  
15       like there was an error of one decibel, but there  
16       was not.

17           With respect to tonal components, we  
18       agree that tones could be a concern, and that the  
19       standard condition of certification of noise is  
20       that there be no pure tones nor objectionable  
21       frequencies. We also noted that in other air-  
22       cooled condenser installations that the Commission  
23       staff who I talked to was familiar with that tones  
24       and beeps had not been an insurmountable problem.

25           Finally -- Not even finally, probably

1 most importantly, the vendor indicated through  
2 Duke's testimony that we were using a level for  
3 the fans that was three decibels too low for the  
4 fan arrays, so we redid the noise analysis in  
5 rebuttal, adding those three decibels in. And the  
6 changes were actually quite small, and this is  
7 because the cooling fans that are being specified  
8 here are very quiet and, in most cases,  
9 overshadowed by the power plant itself.

10           However, when these changes occurred,  
11 the resulting noise level, say, for dry cooling  
12 alternatives one and two, even though they  
13 increased by one or two decibels at the most  
14 effective receivers, the cumulative noise levels  
15 remained insignificant. But for hybrid cooling,  
16 in contrast, the predicted changes in noise levels  
17 were enough to take it over the edge, and take the  
18 noise exposure over the edge to where they  
19 exceeded the LORS and the standards of  
20 significance.

21           The applicant also questioned our  
22 assumptions about shielding of the fans by  
23 intervening topography and structures, and I hope  
24 I've satisfactorily countered that we only took a  
25 credit, if you will, for shielding when it was

1       apparent that only the power plant or perhaps the  
2       berm in the case of the RV park would be expected  
3       to provide that kind of shielding.  It only  
4       affected three receivers.

5               So I'd just like to close by saying that  
6       during this whole analysis, we have attempted to  
7       respond to the concerns of all of the interested  
8       parties, incorporating those elements as  
9       appropriate, and our conclusions are that it  
10      appears to be practical to mitigate the noise for  
11      the dry cooling alternatives, but the noise from  
12      the hybrid cooling alternatives is likely to  
13      remain significant after application of the  
14      practical mitigation techniques.

15             MS. HOLMES:  Thank you.

16             With that, the witnesses are available  
17      for cross examination.

18             HEARING OFFICER FAY:  Mr. Ellison?

19             MR. ELLISON:  Thank you.  First of all,  
20      let me start with Mr. Henneforth.

21                       CROSS-EXAMINATION

22      BY MR. ELLISON:

23             Q       Mr. Henneforth, you testified regarding  
24      the consequence of the difference between Duke's  
25      design and staff's design.  Let me ask you this:

1 On an average summer day in Morro Bay, what would  
2 be the difference in output between the staff's  
3 design and Duke's design?

4 A On an average summer day, the difference  
5 would be somewhere on the order of ten megawatts.  
6 I'm sorry, are you referring to non-duct-fired?

7 Q I'm referring to the staff's -- What is  
8 the staff's information about the average  
9 temperature during the summer in Morro Bay?

10 A I believe we're looking at about the 64-  
11 degree case, which is an average summer day daily  
12 temperature. I believe that takes into account  
13 most of the hours.

14 MS. HOLMES: I just wanted to -- I have  
15 a question. Are you asking him what the design  
16 point that he used was, because I think he did  
17 provide that.

18 MR. ELLISON: I'm asking him what the  
19 difference in the output of the project would be  
20 from Duke's proposal at the average summer day.

21 MS. HOLMES: And the difference between  
22 Duke's proposal and -- I'm sorry, I'm just not  
23 understanding your question.

24 MR. ELLISON: The design parameters used  
25 by the staff that resulted in a five-by-five ACC,

1 air-cooled condenser.

2 MS. HOLMES: Okay.

3 MR. HENNEFORTH: The assessment we did  
4 for the unfired case at the 64-degree temperature  
5 resulted in a ten-megawatt difference in output.

6 BY MR. ELLISON:

7 Q Do you recognize the piece of paper that  
8 I just handed you, Mr. Henneforth?

9 A I believe it comes from your testimony.

10 Q And it contains a graph of the designs  
11 at different temperatures of the CEC dry cooling  
12 alternative one, and the CEC dry cooling  
13 alternative one duct-fired, correct?

14 A Yes, it does.

15 Q Unfired or duct-fired, okay. At 64  
16 degrees, based upon -- Well, first of all, do you  
17 disagree with the performance characteristics  
18 shown?

19 A I didn't prepare this graph, but in  
20 looking at it I don't disagree with it.

21 Q Okay. Looking at this graph, first with  
22 respect to the CEC's dry cooling alternative one  
23 duct-fired case, at 64 degrees, what is the output  
24 of the project?

25 A Based on this graph, which Duke

1 prepared, it's about 1100 megawatts.

2 Q And that would be 100 megawatts below  
3 Duke's project, correct?

4 A That's correct.

5 Q Now, for the staff's unfired case, what  
6 would be the output of the project?

7 A It looks like it's slightly below 1,000  
8 megawatts.

9 Q So on an average summer day, the  
10 temperature in Morro Bay, the staff's duct-fired  
11 case would produce 100 megawatts less than Duke's,  
12 correct?

13 A At the 64-degree case, which we would  
14 call representative of a summer day, we prepared  
15 our assessment, indicated that for both cases  
16 being unfired, to be about a ten-megawatt  
17 difference. Your question specifically, or this  
18 information prepared by Duke, that if -- and you  
19 correct me if I interpret it wrong, that if we  
20 took the staff case and added duct-firing, it's  
21 Duke's assessment that 1100 megawatts could be  
22 produced if -- and that would compare to 1200  
23 megawatts using Duke's proposed project.

24 Q Do you have any reason to disagree with  
25 the information shown here?



1 MS. HOLMES: Can I insert one moment of  
2 clarification? You've misstated his testimony  
3 slightly. His testimony in the rebuttal testimony  
4 is that 64 degrees is the average summer afternoon  
5 ambient, it's not a 24-hour temperature.

6 MR. ELLISON: Thank for that correction.

7 MS. HOLMES: And I think that is an  
8 important distinction.

9 BY MR. ELLISON:

10 Q So on an average summer afternoon, the  
11 difference between staff's duct-fired case and  
12 Duke's case would be 100 megawatts, correct?

13 A According to this chart.

14 Q Well, again, you've testified you don't  
15 have any reason to disagree with the graph.

16 A I don't have any reason to disagree with  
17 it.

18 Q And the difference between the unfired  
19 staff case and Duke's project would be 230,  
20 something in that ball park?

21 A Two hundred and something.

22 Q Okay. So, on an average summer  
23 afternoon in Morro Bay, the staff's design cuts  
24 the peaking capacity of the project in half,  
25 doesn't it?

1           A     It cuts the peaking capacity.

2           Q     In half, correct?

3           A     In half.

4           Q     Let me ask you this, what definition of  
5 feasibility did staff use for the purposes of this  
6 analysis?

7           A     Feasibility would be that the plant  
8 could be design-constructed to operate under the  
9 criteria that was stated in our testimony at the  
10 project location. And from a technical  
11 perspective, that the plant would operate as a  
12 base load unit.

13          Q     So as long as it could be constructed  
14 and operated as a base load unit, staff would deem  
15 that feasible?

16                MS. HOLMES: Can I clarify that you're  
17 just talking to him about his portion of the  
18 testimony which doesn't go to the environmental  
19 topics that are being discussed by the other  
20 witnesses?

21                MR. ELLISON: Well, in the interest of  
22 saving time, I'll tell you what I'd like to do. I  
23 have a number of questions, and I'd like to avoid  
24 having to ask every single panelist.

25                So is there a lead witness that I can

1 ask about staff's policy generally? I mean, I  
2 assume staff had a definition of feasibility that  
3 didn't vary from person to person, or is that not  
4 correct?

5 MS. HOLMES: Staff has a definition of  
6 feasibility that, of course, is based on the CEQA  
7 definition, but I think that the perspective of it  
8 is different, whether you're being asked to look  
9 at engineering data or whether you're being asked  
10 to look at the visual impact.

11 MR. ELLISON: I'm not arguing, I'm just  
12 asking.

13 MS. HOLMES: And I'm answering.

14 MR. ELLISON: Okay. Well, okay, let me  
15 ask it this way. Did staff use the CEQA  
16 definition?

17 MS. HOLMES: Yes, it did.

18 MR. ELLISON: Okay. And so you would  
19 agree that that is the appropriate definition.

20 MS. HOLMES: I would agree with that.

21 BY MR. ELLISON:

22 Q And, Mr. Henneforth, in the answer that  
23 you just gave, you mentioned two things. You  
24 mentioned whether it could be constructed at the  
25 site, and whether it could operate as a base load

1 unit.

2 Did you consider any other aspects of  
3 feasibility than that?

4 A I looked at, as a base load unit, that  
5 it would incorporate the performance of the plant,  
6 did look at the cost, which is presented in the  
7 testimony on the first cost basis only.

8 Q Did you look at anything other than  
9 those first -- the cost issues? Could it be  
10 constructed? Could it operate as a base load?

11 A I think everything is pretty much folded  
12 into that. I mean, you know, subparts of it,  
13 perhaps, as contained in my testimony. You know,  
14 I address specific issues, but I believe they're  
15 incorporated in that statement.

16 Q Let me refer you to page three of the  
17 FSA testimony.

18 MR. ELLISON: Well, maybe we can make  
19 this quicker. I understand -- Is it true that the  
20 staff did not do a detailed analysis of the  
21 potential for impacts for Duke's sized project?

22 MS. LEE: Yes, that's correct.

23 MR. ELLISON: Okay.

24 BY MR. ELLISON:

25 Q So if the Commission were to determine

1       that providing the peaking capacity that Duke  
2       stated as its objective, can staff say whether  
3       that's feasible or not with a dry cooling  
4       configuration?

5           A     No.

6           MR. ELLISON:   Okay.   Let me ask a  
7       question, and I'd like to ask this generically, if  
8       I can.   Let me start it this way, but generically,  
9       I mean.   I'd like to avoid having to ask this of  
10      everybody.

11           Was there a size of the condensers that  
12      was provided to staff doing environmental analysis  
13      so that they could all use the same size for that  
14      purpose?

15           MS. LEE:   Yes, there was.

16      BY MR. ELLISON:

17           Q     And what was that size?

18           A     Initially, it was the size that was  
19      defined in chapter three of the cooling report.  
20      That was redefined, then, with noise mitigation  
21      options.   So staff actually evaluated the initial  
22      design, and also what we're calling the noise-  
23      mitigated configuration.

24           Q     Let's take the noise-mitigated  
25      configuration.   Did the size that was provided to

1 staff for that analysis, was it the footprint of  
2 the structure itself?

3 A That was provided to staff, in addition  
4 to the graphic that defined the height and  
5 dimensions of the structure, yes.

6 Q But the dimensions, in terms of site  
7 impacts, did not extend outside the boundaries of  
8 the physical footprint of the condenser itself; is  
9 that correct?

10 A That's correct.

11 Q And is it also correct that in the  
12 staff's proposed design, the two condensers abut  
13 one another?

14 A Yes.

15 Q So were the environmental staff provided  
16 with the dimensions of the area around the  
17 condensers that might be necessary for access for  
18 construction or maintenance?

19 A No.

20 Q So is it fair to say that to the extent  
21 that construction or maintenance access around the  
22 condensers might have an impact environmentally,  
23 that that -- but staff did not look at that?

24 A That's correct.

25 Q In looking at feasibility, did the staff

1 consider whether the applicant would have site  
2 control, and by site control I mean reasonable  
3 access to ownership of the property necessary to  
4 conduct the project?

5 A Yes.

6 Q Are you aware that the City of Morro Bay  
7 has stated that they will not provide necessary  
8 easements and other land access necessary to build  
9 the project if it is conducted, if it's done in a  
10 dry-cooled configuration?

11 A I've heard that, yes.

12 Q Did the staff take that into account in  
13 determining feasibility?

14 A No.

15 Q Do you know of any way that either the  
16 Commission or Duke could force the City to provide  
17 the necessary easements and access to land?

18 A Can you restate that, please.

19 Q Do you know of any way that either Duke  
20 or the Energy Commission could compel the City of  
21 Morro Bay to provide the easements or land access  
22 necessary for the project?

23 MR. HAMBLIN: I'm not aware of any.

24 MR. ELLISON: In the staff's  
25 configuration, the ACC units abut one another --

1 We just discussed that a moment ago, correct?

2 MS. LEE: Yes.

3 MR. ELLISON: Where would the pipe racks  
4 be located in that case?

5 MR. HENNEFORTH: The pipe racks would  
6 most likely be located at ground level, and those  
7 that would need to go beyond the ACC units would  
8 go either around or under the -- if you're  
9 referring to pipe racks for the large steam ducts,  
10 I don't know if that's part of your question, or  
11 just for auxiliary-type equipment?

12 MR. ELLISON: No, I'm referring to the  
13 large steam ducts, the ones that in Duke's design  
14 are between the condensers.

15 MR. HENNEFORTH: In the staff design,  
16 those do not go between the units, they -- the  
17 steam ducts come from the steam turbines, and they  
18 would go along the, I guess it would be the north  
19 or west side of the ACC units, and feed from the  
20 side rather than go between.

21 BY MR. ELLISON:

22 Q So that would extend the length of the  
23 ACC units, would it not, by the distance necessary  
24 to allow the pipe racks at each end?

25 A No, I don't mean the far ends, I mean



1 across the sides, I guess, is what I'm trying  
2 to --

3 Q What would be the length of those steam  
4 ducts, from the condensers to the steam ducts?

5 A Oh, the distance between the condenser  
6 to the steam ducts, I'd have to look at the sketch  
7 that -- For this alternative one it wouldn't be  
8 prohibitively long.

9 Q And you mentioned other pipe racks --  
10 Well, let me ask this. With respect to the steam  
11 ducts, is it staff's design that they would go  
12 around the condensers in any way?

13 A The steam ducts?

14 Q Yes.

15 A No.

16 Q Would they go under the condensers in  
17 any way?

18 A No.

19 Q And would they go over the condensers in  
20 any way?

21 A Well, they're designed to mount on top.  
22 there is a single steam duct that would come from  
23 each steam turbine. It would feed the header  
24 along the side of the ACC unit, so there would be  
25 two of those, one for each ACC unit. And then

1       there would be risers that would come up and go  
2       over the top -- This is the normal configuration  
3       of an ACC unit.

4               MS. HOLMES: I believe there are  
5       sketches of those in staff's testimony.

6       BY MR. ELLISON:

7               Q     I'd ask you to refer to your rebuttal  
8       testimony on page 12. Specifically under the  
9       issue of relocation of ancillary equipment and  
10      buildings, do you see that?

11      A     Yes, I do.

12      Q     In that first full paragraph, about two-  
13      thirds of the way down, it refers to, "Since these  
14      items are merely planned, they can be easily  
15      relocated"; do you see that?

16      A     Yes.

17      Q     What items were you referring to there?

18      A     I believe the ones in the preceding  
19      sentence. And I can read it. It says, "New  
20      equipment includes closed cool-air system, the  
21      administration, control room, a warehouse, a  
22      parking lot, and oil tanks."

23      Q     Further up you refer to other items,  
24      these items. And there, I take it, you're  
25      referring to the existing ancillary facilities for

1 the operating project now?

2 A Further up in the same paragraph?

3 Q Yes.

4 MS. HOLMES: Could you be just a little  
5 bit more specific, please.

6 MR. ELLISON: Looking at the first  
7 sentence, second sentence. "Staff agrees that  
8 these items will require relocation, but is of the  
9 opinion that none of them are required to be in  
10 near proximity to the units for the plant to  
11 operate properly."

12 MR. HENNEFORTH: I think that is  
13 referring to the items collectively, some of which  
14 exist and some of which do not.

15 BY MR. ELLISON:

16 Q Let me ask you this. Have you done an  
17 engineering study to determine whether you would  
18 relocate the existing ancillary facilities for the  
19 operating project?

20 A No.

21 Q And have you done an analysis of whether  
22 that can be feasibly done while maintaining the  
23 continued operation of the current project?

24 A We haven't looked at -- you know, we get  
25 into this question of feasibility, so -- but we

1 did not look at how it would be done in concert  
2 with operation of the existing units. I presume  
3 it could be either relocation or to minimize down  
4 time, new equipment could be installed and have  
5 very low down time on the existing plant to  
6 transition over to.

7 Q So you're talking about building Duke's  
8 duplicate equipment?

9 A I'm just suggesting that those are  
10 alternatives that could be considered.

11 Q Did you account for the cost of building  
12 duplicate equipment in your feasibility analysis?

13 A Did not account for the cost, nor did we  
14 account for the cost of relocating that equipment.  
15 Our costs basically addressed the alternate ACC  
16 system.

17 Q Let me ask on the next page, page 13 of  
18 the rebuttal. There is a reference there to crane  
19 access, and in the second sentence you say, "Staff  
20 questions whether they" -- presumably Duke --  
21 "they have attempted to minimize interferences by  
22 considering such things as temporary access  
23 through existing berms or through PG&E property";  
24 do you see that?

25 A Yes, I do.

1           Q     Now, we're talking about the large  
2     construction or the large maintenance cranes,  
3     excuse me, that we referred to in Duke's testimony  
4     this morning, correct?

5           A     I'm not sure if this is restricted to  
6     maintenance; it could be construction as well.

7           Q     Okay. And so staff's proposal here is  
8     that the berm would be in some way temporarily  
9     displaced and an opening created in it, and the  
10    crane brought through the berm in that fashion?

11          A     I believe that's one alternative.

12          Q     And has staff examined the property  
13    ownership in that area to determine whether any  
14    permission from the City would be required to do  
15    that?

16          A     I did not. I noted, however, that I  
17    believe -- Again, I could be corrected if I'm  
18    wrong, but looking -- sorry, I don't know the  
19    drawing number of the exhibit, but I believe the  
20    circulating water return lines cross through, are  
21    located as they cross through those berms, and  
22    they would either have to be tunneled under or  
23    temporarily excavated for that installation to  
24    take place.

25                 So in that case, there appears the

1 potential, at least, that there could be  
2 disruption to the berms under the proposed case  
3 that Duke has submitted.

4 Q Maybe we can hasten this, let me just  
5 ask this. Did you do an analysis of the  
6 feasibility of either of these ideas, going  
7 through the existing berms or through the PG&E  
8 property?

9 MS. HOLMES: Can you explain what you  
10 mean by a feasibility analysis? Are we talking  
11 about in the same context that it was discussed  
12 earlier this morning --

13 MR. ELLISON: Yes.

14 MS. HOLMES: -- with respect to  
15 questions of Duke?

16 Do you know what a feasibility analysis  
17 is?

18 MR. HENNEFORTH: In case it could have  
19 been done, would it fit, would the plant operate.  
20 The feasibility analysis is, again, to note that  
21 these are alternatives that could be considered  
22 and not to say that somebody couldn't come up with  
23 a reason why they couldn't, but it appeared, just  
24 looking at the information available, that these  
25 were things that could be done.

1 BY MR. ELLISON:

2 Q Well, the question I'm trying to get at  
3 is whether this is just an idea that you're  
4 tossing out as a possibility, or whether you've  
5 investigated whether, in fact, this is feasible.

6 A No, I would say it's the former.

7 Q And you are aware, with respect to the  
8 PG&E property, that there is an existing high-  
9 voltage substation on that property.

10 A Yes, but, again, looking at the  
11 drawings, it doesn't appear that we're talking  
12 about infringing very much into that PG&E  
13 property, and the amount of infringement, from  
14 what I can tell, doesn't look like it actually  
15 interferes with any of the equipment.

16 MR. ELLISON: I've got some questions on  
17 noise. I think Mr. Buntin would be appropriate  
18 for those.

19 HEARING OFFICER FAY: Go ahead.

20 BY MR. ELLISON:

21 Q Mr. Buntin, did you analyze the project  
22 at Duke's sizing, either the seven-by-five or the  
23 eight-by-five configuration, to determine whether  
24 it could comply with the City's noise element?

25 A No.

1           Q     Do you have an opinion as to whether it  
2     could comply?

3           A     No. Not having actually looked at the  
4     numbers, I'm sorry.

5           Q     That's no, you do not have an opinion?

6           A     I do not have an opinion.

7           Q     Now, with respect to the staff's five-  
8     by-five configuration, what was your determination  
9     of the compliance with the noise element? Well,  
10    let me ask this. What is the required decibel  
11    level and the City's noise element at the nearest  
12    receptor?

13          A     Well, the nearest sensitive receptor, in  
14    accordance with the definitions of the noise  
15    element, would be R-5 or the RV park. And the  
16    standard there would be the nighttime noise  
17    standards, so we'd be looking at an average or a  
18    median noise level, excuse me, of 45 decibels.

19          Q     And with staff's five-by-five  
20    configuration, how many decibels did your analysis  
21    determine the plant would produce?

22          A     After making that correction for three  
23    db higher source level for the ACC, it comes out  
24    to 45.0 decibels.

25          Q     So it's exactly, to the tenth, right on



1 the standard, correct?

2 A That's correct.

3 Q And if it went up by a tenth of a  
4 decibel, it would no longer comply, correct?

5 A Theoretically, yes. And can I comment  
6 on theory? Just to the extent that you --  
7 Somebody is going to go out and measure it, and  
8 some of the meters have a certain tolerance of  
9 accuracy. So seldom does anybody enforce it down  
10 to a tenth of a decibel.

11 Q So what you're saying is that -- Let me  
12 put it this way. If it were to go above the 45 --  
13 Well, never mind. Point made, I think.

14 Your calculations were based on GEA  
15 estimates, correct?

16 A That's correct.

17 Q And do you understand that those are  
18 estimates and not guarantees?

19 A Yes.

20 MR. ELLISON: That's all I have for  
21 Mr. Buntin, thank you.

22 MR. BUNTIN: Okay.

23 MR. ELLISON: These questions are for  
24 Mr. Hamblin about land use issues.

25 BY MR. ELLISON:

1           Q     Mr. Hamblin, the City zoning requires  
2     that the plant be a coastal-dependent industrial  
3     use, correct?

4           A     Correct.

5           Q     And were the project not to be licensed  
6     by the Energy Commission, it would require both a  
7     coastal development permit and a conditional use  
8     permit from the City, correct?

9           A     Correct, if it was exclusively under the  
10    City's jurisdiction.

11          Q     Is it your understanding that it is?

12          A     Well, I guess I got a little confused of  
13    what you were asking me now.

14          Q     If the project were not going to be  
15    licensed by the Energy Commission, would it  
16    require a conditional use permit from the City?

17          A     Yes.

18          Q     And that conditional use permit would be  
19    issued by the City, correct?

20          A     Correct.

21          Q     And it would not be -- Unlike the  
22    coastal development permit, it would not be  
23    subject to review by the Coastal Commission,  
24    correct?

25          A     No, the City has a certified plan,

1 correct. So the City would make the  
2 determination.

3 Q Do you know of any recommendation that  
4 the Coastal Commission could make that would be  
5 applicable to the City's decision with regard to  
6 zoning in a coastal -- I mean, I'm sorry, in a  
7 conditional use permit?

8 A No, I can't comment on that. I don't  
9 know.

10 Q Is it your understanding that a dry-  
11 cooled plant has to be located near the ocean?

12 A Has to be? No.

13 Q Okay. What is the definition of  
14 coastal-dependent industrial use for the purposes  
15 of the City zoning requirement?

16 A It follows the Coastal Commission  
17 that -- I have had my land use testimony --

18 Q Let me direct you to page 76 of the FSA.

19 A Okay. It states, "Coastal-dependent  
20 industrial land use is land use that specifically  
21 relates to those industrial land uses which are  
22 given priority by the Coastal Act of 1976 for  
23 location adjacent to coastlines. Examples of uses  
24 in this designation are thermal power plants,  
25 seawater intake structures, discharge structures,

1        tanker support facilities, and other similar uses  
2        which must be located on or adjacent to the sea in  
3        order to function at all."

4                    And then it goes on, "The Morro Bay  
5        wastewater treatment facilities are protected in  
6        their present location, since an important  
7        operational element, the outfall line, is coastal-  
8        dependent."

9            Q        So to be coastal-dependent, the facility  
10       would have to be of a technology that must be  
11       located on or adjacent to the sea in order to  
12       function, correct?

13           A        Correct.

14           Q        And a dry-cooled facility does not meet  
15       that requirement, correct?

16           A        If we're not using any water, as opposed  
17       to some water.

18           Q        A 100-percent dry-cooled facility does  
19       not meet this requirement, correct?

20           A        That would be correct. Well, under this  
21       definition, correct.

22           Q        This is the applicable definition for  
23       the City zoning requirement; is it not?

24           A        That's correct.

25           Q        And is there any exception in this

1 definition for a facility that could function  
2 elsewhere than on or adjacent to the sea?

3 A No, from what I'm reading.

4 Q Okay. Now, in the case of this project,  
5 because it's being licensed by the Energy  
6 Commission, is it your understanding that the  
7 Energy Commission determines compliance with this  
8 zoning requirement?

9 A Under section -- Yes, under our  
10 permitting authority, the Energy Commission will  
11 have the final say on the zoning designation,  
12 correct, consistency of the project.

13 Q And the Commission would look first at  
14 the plain meaning of the requirement; would it  
15 not?

16 MS. HOLMES: That's a legal question; I  
17 object to that.

18 HEARING OFFICER FAY: Fair enough;  
19 sustained.

20 MR. ELLISON: Well, you know, as is the  
21 case throughout these things, these witnesses are  
22 testifying as to whether the project can comply  
23 with an applicable LORS. It's pretty hard to talk  
24 about that without getting into some legal  
25 questions. I do have a right, I think, to ask

1       what his understanding is.

2               I will stipulate he's not a lawyer.

3               HEARING OFFICER FAY: With that --

4               MS. HOLMES: You're asking him -- I'm  
5       sorry.

6               HEARING OFFICER FAY: Okay. With that  
7       understanding, ask him his understanding or his --

8               MR. ELLISON: Okay.

9       BY MR. ELLISON:

10              Q     Is it your understanding, Mr. Hamblin,  
11       the Commission would make that determination first  
12       by looking at the plain meaning of the law in  
13       question?

14              A     Correct, they would look at the facts of  
15       the case.

16              Q     Okay. And then secondly, would it not  
17       place great weight upon the opinion of the City  
18       that would ordinarily enforce this requirement?

19              A     As staff has stated, they would -- the  
20       Commission gives great deference to the local  
21       government.

22              Q     And do you know of anything that the  
23       Coastal Commission could recommend or do that  
24       would have any bearing on the City's determination  
25       of zoning compliance?

1           A     Not on the zoning compliance, no.

2                     MR. ELLISON:  Let me return to

3     Mr. Henneforth briefly.

4     BY MR. ELLISON:

5           Q     Mr. Henneforth, you testified I believe  
6     that there are other projects that you're aware of  
7     that -- and I'm paraphrasing, but the gist of it  
8     was that there are other projects that have been  
9     constructed on sites that have more constraints  
10    and are more difficult than this project; do you  
11    recall that?

12          A     Yes, I do.

13          Q     First of all, let me ask this.  Are you  
14    talking about combined-cycle dry-cooled facilities  
15    of an equivalent size to the Morro Bay project?

16          A     No.  My comment in that regard primarily  
17    was made on the basis that there are projects that  
18    are faced with fairly extreme site constraints,  
19    and they could be smaller projects, could be  
20    combined-cycle, not combined-cycle, convention  
21    plants.  And that there are -- they've been done  
22    in the past successfully and operate, so there are  
23    ways to accomplish things that appear to be  
24    difficult.  And that's the basis of my comment.

25          Q     So is your comment just that people have

1 overcome site constraints in a very general way?

2 A Yes.

3 Q Did you mean to testify that you know of  
4 any dry-cooled combined-cycle power plants of an  
5 equivalent size to Morro Bay that have been  
6 constructed within the site constraints of this  
7 project?

8 A Not of this size, but there are  
9 combined-cycle air-cooled plants that have done  
10 very innovative things, that specifically may or  
11 may not relate to the solution of problems here,  
12 but people have looked at things such as using  
13 different configurations for ACC systems that may  
14 not be rectangular or may be located different  
15 places on a site so they don't have to be side by  
16 side, or perhaps, you know, I know of a couple of  
17 cases where they've even built them above other  
18 equipment.

19 There have been problems where people  
20 have addressed site constraints very innovatively.

21 Q Well, just so the record is clear, I  
22 want to re-ask my question to make sure that we  
23 get a clear record here.

24 My question was are you aware of any  
25 dry-cooled combined-cycle facility of an



1 equivalent size to Morro Bay that's been  
2 constructed on a site with the constraints that  
3 this site has?

4 A No.

5 MR. ELLISON: Let me ask a question  
6 related to terrestrial biology.

7 MS. HOLMES: We need to wake them up  
8 first.

9 (Laughter.)

10 MR. ANDERSON: I was awake.

11 MR. ELLISON: Well, if you weren't, you  
12 are now, right?

13 BY MR. ELLISON:

14 Q Let me ask this, let me ask you to refer  
15 to page 15 of the rebuttal. The bottom of the  
16 page, the very last line, you state, "The FSA  
17 requires mitigation for these significant and  
18 permanent impacts, and I believe you're referring  
19 impacts from Duke's proposed project, correct?"

20 A Yes.

21 Q Are these the noise and lighting impacts  
22 that we discussed yesterday?

23 A It's the impacts on the riparian area,  
24 but also including impacts on the low shoulder-  
25 band potential habitat, ice plant.

1           Q     Well, let me back up to the top.  It  
2     states, "The applicant's statement on page 21 that  
3     the proposed project will not permanently impact  
4     riparian/stream habitats is simply inaccurate."  
5     And then you go on.  So this refers to impacts on  
6     riparian and stream habitats.

7           A     Okay.

8           Q     With that clarification, are the impacts  
9     that you're referring to the noise and lighting  
10    impacts that we discussed yesterday?

11          A     That and there is a small portion of  
12    riparian habitat lost.  As Dr. Huffman pointed  
13    out, he said .02.  This has to do with the  
14    footbridge.

15          Q     Right, and with that correction, that's  
16    what you're referring to.

17          A     Yes.

18          Q     What was your assessment on the impacts  
19    on riparian and stream habitat of either a hybrid  
20    or dry cooling configuration at alternative site  
21    two?

22          A     We determined that there would be --  
23    there could, depending upon where the location of  
24    the cooling towers are, there could be losses of  
25    riparian habitat.  I don't believe anything would

1       affect the stream, it wouldn't get as far as  
2       disturbing the stream, but it would be a loss of  
3       riparian habitat, which would be considered a  
4       valuable resource, and we would consider it a  
5       significant impact that could be mitigated.

6           Q     How much habitat did you calculate would  
7       be lost?

8           A     I can't remember, but I remember figures  
9       in the, maybe up to four acres.

10          Q     And would that be within the ESHA or  
11       ESHA buffer area?

12          A     Yes.

13                   HEARING OFFICER FAY: Time to wrap it  
14       up, Mr. Ellison.

15                   MR. ELLISON: Okay.

16       BY MR. ELLISON:

17          Q     You also testified on page 16 that the  
18       use of the craft parking area was undetermined at  
19       the time the FSA was written; do you see that?

20          A     That's correct.

21          Q     Do you mean by that that Duke had not  
22       determined that it was going to use a craft  
23       parking area for that purpose at that time?

24          A     Where is the exact sentence?

25          Q     It's on page 16.

1           A     Yeah, I know, but there are a lot of  
2 words there.

3           Q     Wait a second, give me a minute.

4           A     Here's one, here's -- I'll read, "In  
5 addition, the proposed project will impact the  
6 craft temporary parking area, parentheses, part of  
7 the alterative two site, the use of which was  
8 undetermined at the time the FSA was written."

9           Q     Right.

10          A     That "undetermined" means that there  
11 were surveys to be conducted there for the Morro  
12 shoulder-band snail that were not finished, and we  
13 don't have a final report, so we can't analyze  
14 that. So if the snail was found on the site, then  
15 that would be a new consideration that we would  
16 work with the agencies in your cells on figuring  
17 out where to go.

18          Q     Okay. So you were not --

19                   HEARING OFFICER FAY: Last question.

20           BY MR. ELLISON:

21          Q     You were not intending to testify that  
22 the proposed craft parking area was within the  
23 ESHA or the ESHA buffer, correct?

24          A     Well, I think -- I don't recall exactly  
25 where, but it is surrounded, it's at least on one

1 side of it, or two sides of it there is riparian  
2 habitat, and additional human use and vehicle  
3 traffic would affect some portion of that riparian  
4 area.

5 MR. ELLISON: Can I restate my question?

6 BY MR. ELLISON:

7 Q The question was whether the craft  
8 parking area in the applicant's proposed project  
9 was within the ESHA or the ESHA buffer?

10 A Well, see, it's not within the ESHA, but  
11 I'm not sure of the buffer.

12 Q Okay, thank you.

13 MR. ELLISON: That's all.

14 HEARING OFFICER FAY: Okay. We're going  
15 to take a ten-minute break now.

16 (Brief recess.)

17 HEARING OFFICER FAY: We're back on the  
18 record.

19 Mr. Naficy, do you have any cross-  
20 examination of the staff panel?

21 MR. NAFICY: No.

22 HEARING OFFICER FAY: Does the City of  
23 Morro Bay have any cross-examination of the staff  
24 panel?

25 MR. ELIE: Yes, we do.

1 HEARING OFFICER FAY: All right.  
2 Proceed.

3 MR. ELIE: The first set of questions is  
4 for Mr. Buntin.

5 CROSS-EXAMINATION

6 BY MR. ELIE:

7 Q Mr. Buntin, you're the staff noise  
8 expert?

9 A Yes.

10 Q And we had some discussion by  
11 Mr. Ellison a few minutes about the City's noise  
12 element and the 45-decibel limit; do you recall  
13 that testimony?

14 A Yes.

15 Q So is it accurate that if the estimates  
16 are incorrect by .1 decibel, then the  
17 configuration that staff is suggesting would not  
18 be feasible under the City's noise ordinance.

19 A I think that would depend on the City's  
20 interpretation, but if we take it literally,  
21 that's correct.

22 Q Then you had some rebuttal testimony  
23 concerning Mr. Dohn's testimony, written  
24 testimony --

25 A Yes.

1           Q     -- where I think your conclusion was  
2     that condition of certification number six as  
3     suggested by staff would solve the tonal problems  
4     he identifies?

5           A     It would ensure that those would not be  
6     allowed to arise.

7           Q     But staff has not conducted those types  
8     of analyses in this instance; is that correct?

9           A     No, staff doesn't normally do so. They  
10    usually request that the applicant do so.

11          Q     And Duke hasn't done that here, right?

12          A     That's my understanding.

13          Q     Nor did they request one by the  
14    Committee.

15          A     That's correct.

16                MR. ELIE: Thank you, Mr. Buntin.

17                The next set of questions are for  
18    Mr. Clayton.

19    BY MR. ELIE:

20          Q     Mr. Clayton, you're the visual expert  
21    for the staff?

22          A     Yes.

23          Q     Maybe I misheard your testimony where  
24    Mr. Ellison was cross-examining you. Did you  
25    testify that from all of the 20-or-so KOPs, I'm

1       sorry, that you had analyzed all 20-or-so KOPs?

2           A     No, it is not correct.

3           Q     Okay.  So am I correct that your  
4       testimony in this section only deals with the six  
5       KOPs you've identified in your tables.

6           A     That's correct.

7           Q     And am I also correct that in all four  
8       of your tables, which are numbers 13 through 16 in  
9       FSA part three, exhibit 197, three of the  
10      viewpoints come out adverse and three, in your  
11      opinion, come out beneficial?

12          A     Yes.

13          Q     You heard some testimony this morning,  
14      or we had some testimony this morning from Duke's  
15      visual witness that under the ACC configuration,  
16      certain vegetation that was in the AFC would need  
17      to be moved; do you recall that testimony?

18          A     Vaguely.

19          Q     Do you concur that the ACC footprint  
20      would be within certain areas where the vegetation  
21      that is proposed in the AFC presently would be  
22      placed?

23          A     I can't confirm.

24          Q     You don't know one way or the other?

25          A     No.



1           Q     Why is it that, in exhibit 197, FSA part  
2     three, you only viewed six of the KOPs instead of  
3     all of them?

4           A     By all, do you mean --

5           Q     The ones that were analyzed in the first  
6     or second go-round of testimony in these  
7     proceedings, in the regular visual testimony, as  
8     opposed to the cooling options?

9           A     In the staff assessment of the FSA, we  
10    include all of the simulations of images that the  
11    applicant provided in the application in the AFC,  
12    but we focus on a subset of viewpoints that are  
13    most impacted by the, at that time, the proposed  
14    project. And we continued to focus on a subset of  
15    the most affected viewpoints for the cooling  
16    options analysis as well.

17          Q     But your ultimate analysis, if you --  
18    when you ranked the proposals, the applicant's  
19    proposal in the AFC was ranked number one  
20    visually?

21          A     Correct.

22               MR. ELIE: Thank you, Mr. Clayton.

23               I have some questions regarding the  
24    hybrid cooling. I don't know who --

25               MS. HOLMES: Are they technical

1 questions?

2 MR. ELIE: Well, they're general factual  
3 background questions.

4 MS. HOLMES: Why don't you toss them out  
5 and we'll see who --

6 MR. ELIE: Okay. See who picks them up.

7 MS. HOLMES: See who can answer them.

8 MR. ELIE: Okay.

9 Has anyone from staff approached the  
10 Cayuca Sanitary District concerning use of  
11 reclaimed water from the wastewater treatment  
12 plant?

13 MR. HENNEFORTH: The extent of our  
14 discussions, at least my discussions -- I don't  
15 know if anybody else on staff had any of us to  
16 visit the plant, I looked at the plant over there,  
17 talked with an operator. It was in the form of an  
18 announced visit. Talked a little bit about the  
19 specifications, and, you know, based on that we  
20 did what appeared to be water availabilities used  
21 in the assessment.

22 BY MR. ELIE:

23 Q In that informal review, you were  
24 looking for a source of a non-seawater water  
25 source, correct?

1           A     Well, specifically, I knew that there  
2     was a water treatment plant there that we could  
3     potentially use as reclaimed water that would  
4     require some further treatment to use in our  
5     plant. I wanted to find out a little bit more  
6     about that.

7           Q     Did staff investigate any other  
8     potential sources of hybrid cooling?

9           A     No. For water?

10          Q     For water.

11          A     No.

12          Q     In fact, there is somewhat of a shortage  
13     of water in this area; do you know?

14          A     That's not my area of expertise; at  
15     least for this project, I didn't review it. But  
16     it is my understanding that it would be difficult  
17     to get enough water to use in a wet system.

18          Q     And are you aware that the wastewater  
19     treatment plant is a joint powers operation of the  
20     City of Morro Bay and Cayuca Sanitary District?

21          A     Yes, I am.

22          Q     And are you aware of the City's position  
23     on use of the wastewater treatment plant for  
24     hybrid cooling?

25          A     Initially, no. But I am aware of it,

1 yes.

2 Q Does that knowledge that the City is  
3 opposed and the fact that you have not approached  
4 the 40-percent owner of the wastewater treatment  
5 plant cause any change to the conclusion that  
6 hybrid cooling is feasible?

7 A I think that is a question that I think  
8 someone else would need to answer. From a  
9 technical perspective it doesn't change, but since  
10 I didn't pursue a question of actually acquiring  
11 the water, you need approvals to do that. I just  
12 looked at what was there and what might be used.

13 So in the context of my testimony, it  
14 doesn't change.

15 MR. ELIE: Well, is there anybody on  
16 staff that can answer that question?

17 MS. HOLMES: Can you repeat the question  
18 one more time?

19 MR. ELIE: The question is, in light of  
20 the fact that the 40-percent owner has not been  
21 approached and that is the only source listed for  
22 hybrid cooling water, does that -- and the City's  
23 stated opposition of being a 60-percent owner of  
24 the wastewater treatment plant to the use of that  
25 water, does that change staff's conclusion on page

1 three of the FSA, part three, Appendix A, cooling  
2 options, that hybrid cooling technology is  
3 feasible?

4 MS. LEE: I can say I think that it may  
5 have caused us, having been aware of that, to add  
6 a caveat to that paragraph, stating exactly what  
7 you just said. But I think given that, again,  
8 this was kind of a conceptual design that, had we  
9 asked that question of both the City, you know,  
10 it's at this point not a question that I think the  
11 City or the plant maybe could answer in a very  
12 definitive way, since we were just looking at a  
13 conceptual design and not an actual question where  
14 we would be asking about a contractor.

15 BY MR. ELIE:

16 Q Well, counsel for the staff indicated  
17 that you all used the definition of feasible from  
18 CEQA, which is Public Resources Code 21061.1, and  
19 the first part of it says that feasible means  
20 "capable of being accomplished in a successful  
21 manner." So is it just not within staff's  
22 conceptual design to figure out whether it can be  
23 factually accomplished, is that not part of the  
24 analysis?

25 A Again, I think the answer just is that

1 the water was found to be available,  
2 theoretically, and that we didn't pursue it to the  
3 extent of finding out whether the City would give  
4 permission for it to be used.

5 MR. ELIE: In coming to the conclusion  
6 that dry cooling and hybrid cooling technologies  
7 are feasible, did staff take into consideration  
8 the length of the construction schedule and the  
9 City's stated desire that the construction  
10 schedule be as expedited as possible?

11 MR. HENNEFORTH: In relation to  
12 acquiring or upgrading the water treatment plant?

13 BY MR. ELIE:

14 Q No, in relation to just in general, in  
15 general that the alternative cooling, if that were  
16 imposed on the project, that that would increase  
17 the schedule. In other words, Duke has expressed  
18 a concern about money, among other things. And  
19 the City is concerned, one of the City's concerns  
20 is about the timing and length it would take to  
21 build the project with an ACC.

22 A In connection with schedule, we  
23 recognize that the schedule would need to be  
24 extended; however, we're not in total agreement  
25 with Duke as to the amount of time that it would

1 take. And that is not based on having a detailed  
2 schedule of everything that needs to be done, it's  
3 just based on our opinion that there are things  
4 that could be done in parallel rather than  
5 everything sequentially, and better planning that  
6 could be done in order to assist the schedule.

7 In relation to the City's opinion on  
8 minimizing the schedule, that was not incorporated  
9 into the assessment.

10 MR. ELIE: Was the City's expressed  
11 concern regarding the removal of the old plant  
12 considered in the determination as to whether or  
13 not dry cooling and hybrid cooling technology  
14 would be feasible?

15 MS. LEE: The assumption in both cases  
16 was that the old plant would be removed.

17 BY MR. ELIE:

18 Q In spite of Duke's expressed intent that  
19 if dry cooling were imposed, they would not build  
20 the plant here, and would not do the modernization  
21 project such that the old plant would still  
22 remain?

23 A The analysis that we were doing was  
24 simply that feasibility of building a new facility  
25 with a different cooling system, not going beyond

1       that to whether or not the applicant would  
2       actually pursue that action?

3               MR. ELIE:   Mr. Schultz has some  
4       questions on land use for Mr. Hamblin.

5               MR. SCHULTZ:   Yes.   I've got just a few  
6       brief questions on land use.   It somewhat overlaps  
7       the applicant's cross-examination, but I'd kind of  
8       like to go through it with what your testimony  
9       was.

10              MR. HAMBLIN:   Okay.

11       BY MR. SCHULTZ:

12              Q       On page 79 of your testimony on your  
13       conclusion for land uses, you state that the  
14       Coastal Commission will have the responsibility of  
15       interpreting relevant provisions of the Coastal  
16       Act and the Morro Bay local coastal program in its  
17       report to the Energy Commission; do you see that  
18       language?

19              A       Yes.

20              Q       Does that -- And that's pursuant to  
21       30413(d) of the Coastal Act.

22              A       Correct.

23              Q       Does that section of the Coastal Act or  
24       anywhere else require the Coastal Commission to  
25       include an interpretation of the local zoning



1 code?

2 A I don't know how they -- you identified  
3 the local zoning code?

4 Q Yes. Doesn't it just --

5 A I think it's the local coastal plan  
6 designation that they'll be interpreting.

7 Q But not the City of Morro Bay's zoning  
8 code.

9 A No. As far as I know, they won't do the  
10 zoning code unless there was some type of  
11 amendment made to that code, and then they're  
12 going to check for consistency with the coastal  
13 plan. And then whatever -- if there is a possible  
14 amendment that's needed to that.

15 Q Does section 30413(d) or anywhere else  
16 in the Coastal Act state that it will interpret  
17 the relevant provisions of the Coastal Act and the  
18 local coastal plan instead of the local  
19 jurisdiction? In other words, does it say  
20 anywhere in those sections of the Coastal Act that  
21 it will interpret the local coastal plan instead  
22 of the local jurisdiction, or would disregard the  
23 local jurisdiction's interpretation?

24 MS. HOLMES: Wait a second, I think you  
25 just asked two different questions.

1           MR. SCHULTZ: Okay. I somewhat  
2           rephrased it. What I'm looking for is --

3           MS. HOLMES: First of all, which section  
4           of the Coastal --

5           MR. SCHULTZ: 30413(d), which gives  
6           responsibility of interpreting the relevant  
7           provisions of the local coastal plan, and my  
8           question is, does that section anywhere state that  
9           it will disregard the local jurisdiction's  
10          interpretation, or it's in place of the local  
11          jurisdiction's interpretation?

12          MS. HOLMES: Are you referring to the  
13          section that discusses the Commission's report?

14          MR. SCHULTZ: Yes.

15          MS. HOLMES: Mark, do you have a copy of  
16          that in front of you or do you want one?

17          MR. HAMBLIN: What I'm looking at is  
18          "The Commission report shall contain" -- This is  
19          in the rebuttal -- "The Commission report shall  
20          contain a consideration of and findings regarding  
21          all of the following: (1) the compatibility of  
22          the proposed site and related facilities with the  
23          goal of protecting coastal resources; (2) the  
24          degree to which the proposed site and related  
25          facilities would conflict with other existing or

1 planned coastal-dependent land uses at or near the  
2 site; (3) the potential adverse effects that the  
3 proposed site and related facilities would have on  
4 aesthetic values; (4) the potential adverse  
5 environmental effects on fish and wildlife and  
6 their habitats; (5) the conformance of the  
7 proposed site and related facilities, which  
8 certified local coastal programs in those  
9 jurisdictions, which would be affected by any such  
10 development; (6) the degree to which the proposed  
11 site and related facilities could reasonably be  
12 modified so as to modify potential adverse effects  
13 on coastal resources, minimize conflict with the  
14 existing planned and coastal-dependent uses at or  
15 near the site and promote the policies of this  
16 division; and (7) such other matters as the  
17 Commission deems appropriate and necessary to  
18 carry out this division."

19 BY MR. SCHULTZ:

20 Q Okay.

21 A Potentially, the Coastal Commission  
22 could get further in --

23 Q It doesn't seem to mean that it will  
24 disregard the local jurisdiction's interpretation  
25 or that it would be an instead of the local

1 jurisdiction's --

2 A Yeah, and not -- it doesn't say it in  
3 writing, and I can't cite the history of what the  
4 Coastal Commission is, other than the fact that  
5 their interpretation of the Coastal Act is what we  
6 would have to be following through in accordance  
7 with the Warren-Alquist Act.

8 Q Then on page 21 of your rebuttal  
9 testimony, it talks about the Energy Commission's  
10 role in the zoning consistency determination,  
11 which is separate and apart from the Coastal  
12 Commission's role with regards to a local coastal  
13 plan, correct?

14 A Correct.

15 Q And you testified earlier about what  
16 your testimony is here, that staff always  
17 recommends that the Committee give great deference  
18 to the local government's interpretation of its  
19 own laws, correct?

20 A Correct.

21 Q And then I believe on previous cross-  
22 examination you testified about the M2  
23 designation, and I won't go back into that, but do  
24 you remember that?

25 A Well, let me just drop back just real

1 quick. The Committee gives great deference to the  
2 local government as well as the staff, provided  
3 there is no erroneous interpretation being made.  
4 And that was, of course, this discussion we had  
5 under the land use analysis several weeks back, in  
6 which there was a difference of opinion regarding  
7 the replacement structure, expansion structure,  
8 and I think we had two other definitions that were  
9 floating around at that time.

10 Q Correct. We'll get into that in a  
11 minute, but they need to find in that paragraph up  
12 above under Public Resources Code 25525, the  
13 Energy Commission needs to make findings about the  
14 project's conformity with local LORS, and that  
15 local LORS includes the Morro Bay municipal zoning  
16 code, correct?

17 A Correct.

18 Q Do you, anywhere in your written  
19 testimony, make the statement that the  
20 alternative, any of the alternative cooling  
21 methods would allow a consistency determination  
22 with the M2 zone, under the Morro Bay municipal  
23 code?

24 A Okay, repeat that one more time.

25 Q Under Public Resources Code 25525, the

1 Energy Commission is going to have to make a  
2 finding that the project conforms with the Morro  
3 Bay municipal code, correct?

4 A Correct.

5 Q Is there anywhere in your testimony that  
6 you make the consistency between any of the  
7 alternative cooling methods and the Morro Bay  
8 municipal code?

9 MS. HOLMES: I'm sorry, I didn't  
10 understand that, "make the consistency"?

11 MR. SCHULTZ: Determination between any  
12 of the alternative cooling options that have been  
13 proposed and the M2 Morro Bay municipal code  
14 zoning?

15 MS. HOLMES: Just one more time, sorry.

16 MR. SCHULTZ: All right, I'll try it one  
17 more time.

18 HEARING OFFICER FAY: Can the witness or  
19 did the witness, in his testimony, recommend,  
20 affirmative, recommend that there is a consistency  
21 between any of the alternative cooling proposals  
22 in staff's analysis and Morro Bay LORS?

23 MR. SCHULTZ: Specifically, not just the  
24 LORS being the Morro Bay municipal code section  
25 1724150, which deals with the M2 designation.

1 BY MR. SCHULTZ:

2 Q I do not see anywhere in your written  
3 testimony, that's why I'm asking that question.

4 A Yeah, I believe you're correct. I  
5 don't --

6 Q And in the next area we'll deal with the  
7 expansion, and that's on page 77 of your  
8 testimony.

9 HEARING OFFICER FAY: One more time, the  
10 page number?

11 MR. SCHULTZ: Seventy-seven.

12 HEARING OFFICER FAY: Thank you, okay.

13 BY MR. SCHULTZ:

14 Q And, now, this deals with finding a  
15 consistency with the local coastal plan, and the  
16 way you go about that is even though coastal-  
17 dependent industrial facilities shall be  
18 encouraged to be located or expanded within the  
19 existing site and have to be coastal-dependent  
20 use, you get around that on page 77 by saying that  
21 this could be an expansion of the existing  
22 coastal-dependent power plant under the Coastal  
23 Act 30260; do you see where that is in the second  
24 paragraph?

25 A I do.

1           Q     Are you now stating that any of the  
2     alternative cooling methods would be an expansion  
3     of the existing project?

4           A     No. No, we deemed them a replacement,  
5     and that's what staff will continue to proceed  
6     with. I think what the Coastal Commission  
7     citation is referencing, the use of existing  
8     infrastructure at a site as opposed to taking it  
9     somewhere else, from an existing designated power  
10    plant site under their coastal zone.

11          Q     I'm still not quite with you, because as  
12    I read that paragraph, you're stating that the  
13    Coastal Commission can find this is an expansion  
14    of an existing coastal-dependent industries, and  
15    as an expansion, therefore --

16          A     Well, again, the Coastal Commission is  
17    the one that's going to have to determine that  
18    consistency. Staff has attempted to, without the  
19    benefit of the report that has been defined in  
20    30413(d), and whether or not -- and under the  
21    Coastal Commission, they call them coastal, and  
22    I'll quote from them, "Coastal-dependent  
23    industrial facilities shall be encouraged to  
24    locate or expand within existing sites, and shall  
25    be permitted reasonable long-term growth where



1 consistent with this division."

2 What we're saying is yes, development  
3 within the existing site for this particular  
4 facility, and use of the existing infrastructure  
5 that's there already, as opposed to taking it  
6 somewhere else.

7 Q I believe your testimony earlier was  
8 that this site could be used -- could use some  
9 water, I think you mentioned, and, therefore,  
10 function adjacent to the sea in order to function.

11 A Correct.

12 Q By using some water, they would have to  
13 have use of the City owned and controlled outfall  
14 base, is that correct, or outfall system?

15 A Correct.

16 MR. SCHULTZ: No further questions.

17 HEARING OFFICER FAY: Okay, thank you.

18 Any redirect, Ms. Holmes?

19 MS. HOLMES: Yes, unfortunately, I do.

20 REDIRECT EXAMINATION

21 MS. HOLMES: First of all, just with  
22 respect to the last question, Mr. Hamblin, you've  
23 worked on other Energy Commission projects. Do  
24 some of them use a zero-liquid-discharge system?

25 MR. HAMBLIN: Yes.

1 BY MS. HOLMES:

2 Q Okay. I'd like to turn back for a  
3 second to this question of coastal-dependent  
4 industrial land use. Your definition that you  
5 provided in your testimony, which is exhibit 197  
6 on page 76, is that derived from the City's  
7 coastal land use plan?

8 A Yes.

9 Q And is that local -- is that coastal  
10 land use plan certified by the California Coastal  
11 Commission?

12 A Yes.

13 Q And was it your testimony earlier that  
14 it will be the Coastal Commission that has the  
15 primary responsibility for determining  
16 consistency?

17 A Yes.

18 Q Thank you. Now, there was also a  
19 discussion earlier about zoning. I'm going to try  
20 to make this as simple as possible.

21 Is it your understanding that the zoning  
22 the City has in place must be consistent with the  
23 local coastal plan?

24 A Yes.

25 Q So that if the Coastal Commission were

1 to come up with a specific interpretation of a  
2 provision of the coastal plan in its report, would  
3 staff recommend that similar language in the  
4 zoning be treated consistently?

5 A They would both have to be consistent.

6 Q I'll just cut to the chase so we can  
7 move this along a little bit.

8 So, in other words, if the Coastal  
9 Commission were to determine that this project was  
10 consistent with the local coastal plan, would  
11 staff then recommend that the Commission find that  
12 the project is consistent with local zoning as  
13 well?

14 A Yes.

15 Q Thank you. And did you recognize in  
16 your testimony the possibility that the Coastal  
17 Commission could, in fact, find this project  
18 consistent with the local coastal plan?

19 A Yes.

20 MS. HOLMES: I think that's it for land  
21 use.

22 I have one question for Mr. Buntin.

23 BY MS. HOLMES:

24 Q Mr. Buntin, we had a discussion earlier  
25 about this project being fairly close to the

1 levels that are enforced by the City's noise  
2 ordinance; do you recollect that discussion?

3 A Yes.

4 Q And, in your experience, are there other  
5 project developers that have come to the Energy  
6 Commission seeking licenses for projects that, in  
7 fact, either create significant noise impacts or  
8 potentially violate LORS, at least at the time of  
9 their initial filing?

10 A Yes.

11 Q And in your experience, are those  
12 projects withdrawn as infeasible or denied?

13 A Not to my knowledge.

14 Q All right. Have the noise levels been  
15 dealt with in one way or another and lowered?

16 A The conditions of certification have set  
17 the appropriate standards, and so far the  
18 applicants have not -- what shall I say, they've  
19 had to accept those.

20 Q Thank you.

21 MS. HOLMES: Mr. Henneforth, just a  
22 couple of questions.

23 BY MS. HOLMES:

24 Q First of all, do you have experience in  
25 developing energy-related projects?

1           A     Yes, I do.

2           Q     So when you've talked about tossing out  
3     ideas for solving site constraint problems, those  
4     are based on your experience in developing power  
5     plant or energy-related projects?

6           A     Yes.

7           Q     In your experience, do these kinds of  
8     solutions, are they in place during the conceptual  
9     design or do they develop as you move down the  
10    road with these?

11          A     They tend to develop as the issues  
12    arise.

13          Q     Can you give me an example of some of  
14    the kinds of site constraints that you're familiar  
15    with that projects have overcome?

16          A     They've been different types of things.  
17    Most commonly, it's the amount of land available  
18    to build the project, things such as not having  
19    room to do all of the construction laydown and  
20    staging, in which case accommodations are made off  
21    site, pre-assembly of some things, bussing people  
22    into the site when necessary. Also, I've had  
23    experience with going in and doing retrofits on  
24    existing plants where there are constraints in  
25    gaining access to equipment, and also in one case

1       where a new plant was built inside an existing  
2       building.

3           Q     Now, is there anything about the  
4       constraints at this site that are particularly  
5       unique, in light of that experience?

6           A     Well, anytime you have a constraint it  
7       tends to be unique, but I don't believe there's  
8       anything regarding this site that could not be  
9       overcome.

10          Q     Thank you. Those are all my questions.

11               HEARING OFFICER FAY: Okay. Thank you.

12               Any recross, Mr. Ellison?

13               MR. ELLISON: You caught me off guard.  
14       I thought I was out of time. And on that basis,  
15       no.

16               HEARING OFFICER FAY: Okay, and how  
17       about CAPE?

18               MR. NAFICY: No.

19               HEARING OFFICER FAY: No? And the City?

20               MR. ELIE: No.

21               HEARING OFFICER FAY: Okay. Thank you.

22       That concludes --

23               COMMISSIONER BOYD: Actually, I've got a  
24       couple of questions.

25               HEARING OFFICER FAY: Okay. And while

1 Commissioner Boyd is asking, I'd like the staff to  
2 vacate the table so that CAPE can come back and  
3 present their case on the cooling options.

4 COMMISSIONER BOYD: Actually, no, I have  
5 questions of Mr. Ellison and of the City, so you  
6 can do your logistical rearranging.

7 Mr. Ellison, if you would, I'm seeking  
8 clarification, and this is getting a little old,  
9 but it was on your initial redirect of staff;  
10 specifically, Mr. Henneforth.

11 You were asking him if the staff took  
12 account of the operation of your existing facility  
13 or the existing facility in its design of  
14 alternative cooling, and specifically, whether  
15 that would impinge on the existing facility's  
16 operation. I don't recall that in Duke's  
17 presentation this morning and going through the  
18 model in some depth that the subject of impinging  
19 upon the operation of the existing facility was  
20 ever raised.

21 And if I'm wrong on that point, I would  
22 like somebody to tell me I was wrong and remind me  
23 where I was wrong.

24 MR. ELLISON: I believe this was touched  
25 upon, and I'd be happy to have Mr. Poquette and

1 Mr. Pollack, if you --

2 COMMISSIONER BOYD: Well, I don't want  
3 to take a lot of time, but --

4 MR. ELLISON: Well, I'll give you a  
5 brief description --

6 COMMISSIONER BOYD: Please.

7 MR. ELLISON: -- and if you want more,  
8 then --

9 COMMISSIONER BOYD: I can always go back  
10 and check the record.

11 MR. ELLISON: These buildings that are  
12 nearest to you involve facilities for the existing  
13 project, and they include the peregrin building,  
14 the oil and water separator and other facilities  
15 that are being pointed out now, and the fire pump  
16 house as well.

17 COMMISSIONER BOYD: Okay. I do remember  
18 that discussion. The connection either wasn't  
19 made in my mind or etc., so, all right, thank you.

20 Questions of the City, all day long, and  
21 I guess I have to lay out a predicate for the  
22 question. It's been stated many times a day by  
23 other people that the City would not approve,  
24 permit, provide water for, etc., a project with  
25 alternative cooling. But not until your redirect



1 of staff did the City itself come close to --  
2 start laying out that, indeed, it had erected a  
3 brick wall, let's say, or made, you know, these  
4 were fairly black-and-white statements by others,  
5 and now you've begun to reaffirm them.

6 But I want to make reference to a  
7 letter, and not being a lawyer, I have no idea if  
8 this is in the record or not or whether I can ask  
9 you this question, but the City of Morro Bay's  
10 letter of May 24th to the docket, to the  
11 California Energy Commission docket for this item  
12 is my issue or is the subject I want to broach.  
13 It specifically makes reference to enclosing an  
14 original and copy of the City of Morro Bay's  
15 correspondence with the Regional Water Quality  
16 Control Board dated May 22nd.

17 Now, I don't know if this has been put  
18 into the record and I can ask this question, or  
19 ask the City's permission to ask this question.

20 MR. ELLISON: It is in the record.

21 COMMISSIONER BOYD: It is in the record,  
22 fine. I'd like to make reference to that letter,  
23 because, even though it is a letter to the Water  
24 Board, it is where you do go on record pretty  
25 strongly as opposing alternative cooling methods.

1       It's the first reference I saw when I read these  
2       voluminous -- or one of the references.

3               But, as I said, I've heard some very  
4       black-and-white statements: Either you do all  
5       this, or, you know, you just can't build, the City  
6       won't allow anyone to build the project with an  
7       alternative cooling approach. However, I want to  
8       refer you to page two, the bottom paragraph of  
9       page two, starting with the second sentence.

10              It says, "However, the City of Morro Bay  
11       will continue to oppose alternative cooling  
12       methods until the CEC can prove, through competent  
13       analysis and testimony, paren, that is not  
14       conceptual, paren, that alternative cooling  
15       methods will not cause or exacerbate adverse  
16       effects on visual, noise, air quality, health,  
17       socioeconomic, hazardous materials, traffic and  
18       transportation, and other local natural resources,  
19       compared to the proposed project."

20              Now, I read that as the City giving  
21       itself a little wiggle room. So I'm sitting here  
22       as, you know, one of the two judges, so to speak,  
23       that has to make a determination, and I'm  
24       wondering to myself, if I was faced with the  
25       dilemma of considering in my mind the project with

1 an alternative cooling or the no-project  
2 alternative, I'm saying to myself, well, the City  
3 has left itself a little wiggle room and wouldn't  
4 totally foreclose an alternative cooling approach,  
5 rather than having to live with the no-project  
6 alternative, which means living with the plant  
7 that's sitting out there now, complete with its  
8 three infamous stacks, etc.

9 Do you want to conjecture as to whether  
10 I am interpreting things correct?

11 MR. SCHULTZ: Somewhat correctly, but  
12 I'd rather, if we could, wait until my testimony,  
13 because I'll go into all of that. It's actually,  
14 that wouldn't be the first time. It's in my  
15 actual testimony that's been filed --

16 COMMISSIONER BOYD: Oh, I just found the  
17 letter --

18 MR. SCHULTZ: -- about the different  
19 agreements, and the issue of whether an  
20 alternative cooling option would still be  
21 available, if all the other issues were resolved.  
22 I guess that's wiggle room that an attorney is  
23 always looking for.

24 But, from the standpoint of the City's  
25 position is at this point in time is that they are

1 in support of the proposed project, and if it's  
2 not the proposed project that's currently been  
3 evaluated, then they want no project and will live  
4 with the plant that's there.

5 COMMISSIONER BOYD: All right. So the  
6 wiggle room you've given yourself in this letter  
7 is not necessarily true.

8 MR. SCHULTZ: Correct.

9 COMMISSIONER BOYD: But I'll wait for  
10 your testimony.

11 (Laughter.)

12 HEARING OFFICER FAY: Before we move to  
13 CAPE, just a housekeeping matter, Mr. Ellison, I  
14 mentioned to Mr. Trump that your Powerpoint  
15 presentation, it would be helpful if that was  
16 served on all parties and placed in the docket,  
17 and I'd like to give it the next exhibit number,  
18 if you have no problem with that. And we'll label  
19 that as exhibit 232.

20 And exhibit 232 has two boxes on the  
21 face of it, and the top one says Duke Energy Morro  
22 Bay LLC, Testimony on Alternative Cooling Options,  
23 June 5, 2002.

24 Okay. Mr. Naficy, are you prepared to  
25 present your testimony?

1           MR. NAFICY: Yes. I guess this comes  
2           under housekeeping as well. There was an earlier  
3           discussion today about testimony and rebuttal  
4           testimony that CAPE has presented that was signed  
5           by me, and Mr. Ellison commented that if it's not  
6           taken as, quote, expert testimony, it can be  
7           introduced into evidence.

8           And then we have Mr. Powers' direct  
9           testimony that also was filed. So I wondered if  
10          it would be appropriate to consecutively number  
11          those at this point for identification.

12          HEARING OFFICER FAY: To number  
13          Mr. Powers' testimony?

14          MR. NAFICY: I'm sorry?

15          HEARING OFFICER FAY: Oh, yours and  
16          Mr. Powers?

17          MR. NAFICY: Yes.

18          HEARING OFFICER FAY: Yes.

19          MR. NAFICY: Yes, and then we have a  
20          couple of other ones.

21          HEARING OFFICER FAY: Okay. I would  
22          like you to identify that specifically. What does  
23          it say on the front of it?

24          MR. NAFICY: Well, the one by Mr. Powers  
25          says Powers Engineering on top. And then the two

1 others I referred to include, they say Rebuttal  
2 Testimony Offered by Intervenor and Direct  
3 Testimony Offered by Intervenor, and they bear my  
4 signature.

5 HEARING OFFICER FAY: All right. The  
6 Powers Engineering testimony -- Each of these are  
7 separate pieces?

8 MR. NAFICY: Yes.

9 HEARING OFFICER FAY: Power Engineering  
10 will be exhibit 233.

11 The rebuttal testimony, was that the  
12 next one?

13 MR. NAFICY: Well, we can start with the  
14 direct, and then we can --

15 HEARING OFFICER FAY: The direct  
16 testimony will be exhibit 234, and the rebuttal  
17 testimony of CAPE will be exhibit 235.

18 MR. NAFICY: Now, we do have a couple  
19 more sort of leftovers from before, and then we'll  
20 introduce the marine biological ones tomorrow.

21 HEARING OFFICER FAY: Do you want to do  
22 that now?

23 MR. NAFICY: Yes.

24 HEARING OFFICER FAY: Okay. If you  
25 would just identify them as thoroughly as

1 possible, and then I'll give them the number.

2 MS. SODERBECK: Yes. These are two  
3 exhibits that had been referenced in the air  
4 quality testimony and had been re-served for  
5 clarification to everybody on March 20th. These  
6 two items are -- first is staff's response to  
7 interrogatories put to them by CAPE, which was  
8 docketed originally in the wrong matter, dated  
9 September 13th, 2001. It is attached to a filing  
10 that, as I said, that CAPE did as a clarification  
11 of intervenor on the group two exhibits, and as  
12 well March 20th.

13 HEARING OFFICER FAY: Okay.

14 MS. SODERBECK: The second one --

15 HEARING OFFICER FAY: Just a moment.  
16 That will be exhibit 236.

17 MS. SODERBECK: The second one was a  
18 copy of a brochure put out by the local air  
19 quality district, and it's also attached to the  
20 same March 20th clarification document filed by  
21 CAPE. It's entitled Particulate Matter Air  
22 Pollution. It doesn't, as far as I can tell, have  
23 a date on it.

24 Oh, excuse me, it does --

25 HEARING OFFICER FAY: Particulate --

1 MS. SODERBECK: Particulate Matter Air  
2 Pollution, and it's dated January 1997.

3 HEARING OFFICER FAY: Okay, and that is  
4 exhibit 237.

5 MS. SODERBECK: Thank you.

6 HEARING OFFICER FAY: Thank you. If you  
7 would share copies with the court reporter, at  
8 least temporarily, so he can get the names of  
9 those, I would appreciate it.

10 MR. NAFICY: Well --

11 HEARING OFFICER FAY: In the case of all  
12 the exhibits.

13 MR. NAFICY: Oh, I see.

14 HEARING OFFICER FAY: We want to be sure  
15 the court reporter gets to see them.

16 MR. NAFICY: I will, as soon as I  
17 introduce Mr. Powers.

18 HEARING OFFICER FAY: Okay, all right.

19 MR. NAFICY: For the sake of time and  
20 efficiency, I'm going to --

21 HEARING OFFICER FAY: I think you need  
22 to get closer to your mic, actually.

23 MR. NAFICY: Okay. For the sake of  
24 efficiency and time, I'm going to ask Mr. Powers  
25 to identify himself and briefly list his



1        qualifications and experiences with matters having  
2        to do with alternative cooling technologies,  
3        summarize his testimony, provide the basis for it,  
4        and then also provide some responses and  
5        rebuttals, both to the rebuttal that was filed,  
6        and what he heard today.

7                So, with that, I introduce Mr. Bill  
8        Powers.

9                MR. ELLISON: Well, before we go any  
10       further, I'm going to tell you right now that  
11       we're going to object to anything beyond a summary  
12       of the prefiled testimony. That rule has been  
13       very clear. All of the testimony is supposed to  
14       have been prefiled, including rebuttal. There is  
15       no place in this proceeding for rebuttal to  
16       rebuttal or responses to what's been heard or that  
17       kind of thing.

18               MR. NAFICY: But I think Mr. Powers  
19       filed rebuttal; did he not?

20               MR. ELLISON: Well, I don't have a  
21       problem with him summarizing his prefiled  
22       rebuttal --

23               MR. NAFICY: Yes, okay.

24               MR. ELLISON: -- but what I thought I  
25       just heard was that he was going to provide new

1 evidence that had not been prefiled.

2 MR. NAFICY: Well, he's not going to  
3 provide new evidence, he's going to summarize his  
4 testimony, but he's also going to talk, as has  
5 been done here before, about the basis for his  
6 testimony.

7 Now, I certainly hope that he can  
8 comment on the rebuttal that was filed by Duke. I  
9 mean, when the rebuttal was filed the second go-  
10 round, it can't just be left on its own. I don't  
11 understand how --

12 HEARING OFFICER FAY: Let's go ahead and  
13 get going.

14 MR. NAFICY: Okay.

15 HEARING OFFICER FAY: And we need to  
16 swear the witness, so would you please stand and  
17 be sworn in.

18 Whereupon,

19 BILL POWERS,  
20 Was called as a witness herein and, after first  
21 being duly sworn, was examined and testified as  
22 follows:

23 THE REPORTER: Please be seated.

24 MR. POWERS: My name is Bill Powers,  
25 Powers Engineering, and I'll go ahead and begin by

1 reading my background, registered professional  
2 mechanical engineer since 1986, California.  
3 Primary areas of specialization, conceptual air  
4 emission control technology studies, air  
5 permitting for gas turbine power plants.

6 I'm the author of a 1999 Department of  
7 Energy gas turbine NOx control cost and  
8 feasibility evaluation, co-author of Electric  
9 Power Research Institute gas turbine permitting  
10 and control technology guidance documents in 2000  
11 and 2001. Author of the dry cooling section  
12 included in the 2001 EPRI document.

13 The technical chair of the first power  
14 plant dry cooling symposium held in the United  
15 States, last week in San Diego. I see a number of  
16 you were there, and I thank you for your  
17 participation. And the technical chair of the Air  
18 and Waste Management Association, West Coast  
19 Section 2001. Annual conference on permitting and  
20 gas turbine power plants during the California  
21 energy crisis.

22 I've been working with ACC vendors  
23 almost continuously over the last 12 months in  
24 support of a US-Mexico initiative to encourage use  
25 of dry or parallel dry-wet cooling technology in

1 the US-Mexico border region.

2 Corrections to my May 11th, 2002  
3 submittal, I have reviewed Duke's February 15th,  
4 2002 submittal on the alternative cooling options.  
5 I have reviewed the April 25th CEC FSA, Appendix  
6 A. I have reviewed the May 2002 Duke aquatic  
7 biological resources Appendix D, which is a review  
8 of the CEC FSA, Appendix A.

9 I made a comment in the May 11th  
10 submittal that indicated there would be a need for  
11 more fans with low-noise configuration, and I'd  
12 like to correct that. Further consultation with  
13 the fan vendors indicates that the same number of  
14 cells is the standard. Cell design can be used  
15 with low-noise fans. The issue is that you won't  
16 get a 15-dba drop in sound, you'll get a 10-dba  
17 drop in sound.

18 And I also want to acknowledge the  
19 seawall issue. In reviewing my notes, I had  
20 indicated in that letter that with seawalls you  
21 could maintain the height at the optimum lowest 70  
22 feet when, in fact, it will have to be some feet  
23 higher than that.

24 A summary of my testimony in the  
25 May 11th submittal: The first issue, the use of

1 unfired combined-cycle base case plant  
2 configuration, to summarize, an unfired steam  
3 generator is the most efficient combined-cycle  
4 configuration and the most appropriate design for  
5 the efficiency market described by the CEC for the  
6 California market in their 2002-2012 Electricity  
7 Outlook Report, February 2002.

8 ACC visual impact, optimizing the ACC  
9 layout will result in a significant reduction in  
10 the ACC height used in the CEC presentation and  
11 also in the Duke massively duct-fired  
12 configuration.

13 ACC fan noise, all of the alternatives  
14 that we're discussing will be much quieter than  
15 the existing plant, and the ACC noise can be  
16 optimized by the use of low-noise fans in any of  
17 these array configurations. You may not achieve a  
18 15-dba reduction, but you will achieve a  
19 considerable reduction, in the range of 10 dba.

20 Now I'd like to comment on the rebuttals  
21 received from Duke and from the City of Morro  
22 Bay's consultant.

23 MR. ELLISON: Well, again, I'll register  
24 my objection. None of the other parties in this  
25 proceeding have engaged in surrebuttal, which is

1        what this is, rebuttal to rebuttal, rules I  
2        thought were a level playing field for everybody  
3        and this is the first time we've seen somebody try  
4        to do this. The rebuttal is supposed to be  
5        prefiled. That's the objection.

6                HEARING OFFICER FAY: Okay. We're going  
7        to overrule the objections, just in the interest  
8        of getting a complete record, but the Committee  
9        will take that into account, in terms of the  
10       weight of the evidence.

11               Go ahead.

12               MR. POWERS: The first comment by Duke,  
13        "The dry cooling ACC cost estimate presented in  
14        the CEC's draft report and final FSA are  
15        incorrect," and I just want to relate to the costs  
16        that have been included in Duke's Appendix D  
17        submittal, and responding to the FSA that the CEC  
18        put together where they received a quote of \$20  
19        million capital cost for 40 cells, low-noise fan  
20        add are \$1.5 million, approximately, erection cost  
21        \$10 million, and electrical \$2 million; total  
22        cost, \$34 million.

23               Foundation cost, based on the  
24        information that is standard in the industry, even  
25        if you put concrete under the entire installation,

1        maybe a million. Subtotal cost installed, \$35  
2        million. GEA provides some discount for multiple  
3        units, and even with a fairly significant  
4        contingency of 20 percent, we're looking at \$40,  
5        as compared to over \$100 million in the alt two  
6        estimate and close to \$200 million in the alt one  
7        estimate.

8                HEARING OFFICER FAY: Excuse me,  
9        Mr. Powers, let me interrupt you a moment. It  
10       occurs to me, just in fairness to the applicant  
11       and to the other parties, I've heard from some of  
12       the parties that they do not intend to use all of  
13       their time, so I'm going to give Duke an  
14       opportunity to briefly cross-examine you.

15               MR. POWERS: Okay.

16               HEARING OFFICER FAY: And, likewise,  
17       I'll give CAPE a comparable opportunity to go over  
18       their remaining time.

19               MR. POWERS: Okay. The rationale for  
20       making that statement is to indicate that in the  
21       appendix of the document provided by Duke, the  
22       costs are explicit and well documented, and yet  
23       the actual cost reported is anywhere from three to  
24       five times that amount.

25               The second comment is, "Mr. Powers'

1 statement that California is moving towards an  
2 efficiency-based market for the foreseeable future  
3 is not correct insofar as he implies that peaking  
4 capacity will not be needed or valued." That is  
5 not the intent of the statement.

6 The earlier submittal I had in February  
7 indicated that we've already paid for 1400  
8 megawatts of peaking capacity that is currently  
9 sitting idle and will probably remain idle until  
10 we require it, and that I'm very much in favor of  
11 peaking capacity, but I want to point out the  
12 State of California has paid a heavy price to  
13 build and install that capacity over the last year  
14 and a half, and it's ready to go. And it is our  
15 reserve.

16 Duke's statement, "Duct firing is an  
17 efficient way to provide both base load and  
18 peaking capacity from the same plant. In an  
19 unfired state, the plant would have the same  
20 generating efficiency as a combined-cycle plant  
21 with no duct firing installed." This is not a  
22 true statement. The plant, in an unfired state  
23 designed to meet those 1200 megawatts, would, in  
24 fact, be less efficient than a combined-cycle  
25 plant without duct firing.



1                   November 15th, 2001 FSA statement  
2       concludes that the Hersig duct burners are more  
3       efficient than other technology for providing  
4       energy during peak conditions. The statement  
5       above where Duke gives the comparison of a simple-  
6       cycle gas turbine to duct firing shows that they  
7       are essentially the same. Duct firing is  
8       essentially the same efficiency as peaker firing,  
9       whether it be remote peaker firing or a peaker  
10      right next to the installation.

11                  ACC photosimulations and specifications  
12      provided in the draft CEC report assume an ACC  
13      height of 99 feet. This height is the primary  
14      reason for the visual bulk issue. Duke responds,  
15      "Visual bulk by definition is three-dimensional."  
16      Agreed. And we'll discuss optimization in a  
17      moment, but this is the point where how you split  
18      your units and -- Let me go ahead and just read  
19      this, instead of getting into it at this point.

20                  "A good reason to split ACC: One array  
21      at the south, one array at the northeast at alt  
22      site one and alt site two. These are independent  
23      S207FA production blocks. The separation of the  
24      ACC, putting one block ACC at the south, one block  
25      at the northeast, would eliminate the issue of

1 visual bulk or substantially reduce that issue."

2 And this statement is made, "To reduce  
3 the impacts to a less than significant level, the  
4 ACCs would have to be of comparable size to the  
5 buildings," and in this case, equipment in the  
6 vicinity, so as to be of compatible character with  
7 the surrounding area with heights of approximately  
8 40 to 50 feet. I'd like to point out that the  
9 stack height shown in Duke's submittal is 145  
10 feet. The top of the Hersigs, which are 110 feet  
11 long, are 95 feet, so I'm somewhat unsure where  
12 the compatibility with 50-foot height is an issue,  
13 given the surrounding height of equipment that we  
14 know will be a part of the project.

15 And again, this is mentioned later.  
16 "Additionally, as discussed above, the height of  
17 the equipment must be reduced to at least 50 feet  
18 to begin to eliminate the significant adverse  
19 visual impacts." I simply disagree, especially  
20 with the gas turbine heat-recovery steam generator  
21 and the stack heights.

22 Duke discusses Otay Mesa in the  
23 configuration, given that I had mentioned that  
24 Otay Mesa has a very low design and should be  
25 applicable to this site as well. Final

1 arrangement selected by Calpine was a split  
2 arrangement, with one ACC rotated 90 degrees from  
3 the other, and the unit separated by a distance of  
4 more than 140 feet.

5 Duke also notes that at Otay Mesa it  
6 includes two two-by-seven cell arrays, rotated 90  
7 degrees, separated by 140 feet. The height is 76  
8 feet. That would seem to be a perfect array for  
9 the alt two site, which is a triangular  
10 configuration. Given that you array the gas  
11 turbine so that the steam turbine is as close to  
12 that berm as possible, it cuts the duct run to 200  
13 feet to that T, and just indicates that this Otay  
14 Mesa example is a perfect example for one S207FA  
15 block at Morro Bay utilizing the alt two site.

16 Minimizing ACC noise: "Mr. Powers  
17 correctly notes that the use of super-low-noise  
18 fans, as the staff recommends, would require  
19 additional fan cells." This is incorrect.  
20 Additional fan cells would not be necessary.  
21 Additional fan cells would be necessary to get a  
22 15-decibel reduction in noise from the standard  
23 case. Additional fan cells would not be necessary  
24 for a ten-dba reduction. And it becomes an issue  
25 of to what degree are we going to compromise or

1 work with size versus absolute minimum noise  
2 reduction. That's it for my comments on Duke's  
3 rebuttal.

4 There is a rebuttal from Dr. Gary Clay,  
5 and very briefly, Dr. Clay indicates, "Even if  
6 possible to drop to 70-feet height, ACC would be  
7 huge." That's obviously a qualitative statement,  
8 but yet another very good reason to split the ACC,  
9 put one block at the south and one block in the  
10 northeast, especially given, with all the other  
11 superstructures between those two points, all of  
12 the intermediate equipment would hide that other  
13 ACC block.

14 Final note, a list of ACC vendors are  
15 not provided. "Mr. Powers also fails to supply a  
16 list of vendors willing to integrate such height  
17 reduction into an ACC design." I just want to  
18 point out that this is an incorrect statement. In  
19 that same letter on page two I list GEA Power  
20 Cooling Systems, Hamone Dry Cooling, and Ceramic  
21 Cooling Tower Corporation, which are the three  
22 corporations that would be capable of providing  
23 this information. And that's it for comments on  
24 the rebuttal portion.

25 And I am open -- Would you --

1 HEARING OFFICER FAY: Does that conclude  
2 your testimony?

3 MR. POWERS: No, I have additional  
4 testimony. I didn't know if --

5 HEARING OFFICER FAY: Yes, go ahead.

6 MR. POWERS: Okay. The issue of given  
7 that in both of these letters the rebuttals were  
8 directed at the size and visual blockage of the  
9 ACC, I would like to -- we, having seen this, went  
10 ahead, and I've already given you a verbal  
11 description of the arrays as they would work,  
12 following the CEC's design, and I would ask  
13 permission to simply put a model up in the site  
14 where we now have two large boxes to demonstrate  
15 in an optimized situation what this would look  
16 like.

17 HEARING OFFICER FAY: Sure, go ahead.  
18 Just keep in mind, if you're going to make  
19 comments, you have to be on mic.

20 Do we have a mobile mic he can use?

21 MR. POWERS: To not get myself in  
22 trouble, my first request would be that -- Thank  
23 you -- This model is scaled off of taking a ruler  
24 to the heat recovery steam generator. The heat  
25 recovery steam generator in the FSA is listed at

1       95 feet height. We had a big discussion about  
2       this, and it appears that this is actually scaled  
3       to 90 feet. There are steam generators and  
4       superstructure in here -- excuse me, steam drums,  
5       that lift it to 95 feet. So there is a slight  
6       disjunct, but quite slight between this.

7               This is scaled on this model to be 72  
8       feet high, optimized design. And it consists of  
9       two banks of five cells, a total of ten cells.  
10      And what I want to do on this model is put -- I  
11      want to start with the concept of locating the  
12      air-cooled condensers for all four turbines, both  
13      S207FA blocks here in the south. And to do that,  
14      we would need to have four-by-five, 200-foot gap,  
15      and we would have another four-by-five array over  
16      here. That is a total distance of -- we've got 90  
17      and 90 and 180, 380, 560, 560 feet in length, with  
18      the recommended 200-foot gap between arrays.

19             We have a 660-foot distance, based on  
20      just scaling the diagram, which gives us 100 feet  
21      to work with if we need it over in the PG&E area.  
22      I mean, we could almost have a crane fall over and  
23      not hit PG&E if it's working right here with that  
24      gap. That is one possibility, and this is looking  
25      at the CEC's 40-cell array.

1           We could expand this array with another  
2   line of cells, so that we'd have a five-by-five  
3   and a five-by-five here, and still be within our  
4   property line. This would raise the height some  
5   degree from 72 to I would think the 85-foot range,  
6   and GEA can comment on this later. But the idea  
7   behind this is to look at what we have now. This  
8   is a much different-looking facility than when we  
9   had the boxes sitting there. This is an optimized  
10  design, the other --

11           And one thing I want to point out is  
12  that, and this is something that the CEC pointed  
13  out, is that this facility unfired, the question  
14  was asked to Mr. Henneforth how much can it  
15  produce. Well, Duke has also provided in their  
16  February 15th document a chart that shows us what  
17  output can we produce, excuse me for one second,  
18  page ten of this document, is just a comparison of  
19  what kind of output can we produce with these  
20  different numbers of cells.

21           And what we're showing here is that  
22  we've got a four-by-five array here, a four-by-  
23  five here, and if we choose to duct-fire this  
24  unit, how much can we put out? Well, at 57  
25  degrees, we can produce 1200 megawatts with this,

1 and that's our capacity with duct firing. Twelve  
2 hundred megawatts is 200 megawatts more than the  
3 existing facility can produce. Fifty-seven  
4 degrees is the ambient average temperature here in  
5 Morro Bay.

6 If we duct-fire at 64 degrees, we can  
7 produce 1100 megawatts. That is 100 megawatts  
8 more than the current facility can produce at the  
9 summer daytime average high, and 74 degrees, which  
10 covers more than 99-percent-plus of the hours of  
11 the year, in terms of -- or temperature range of  
12 the year, we can produce approximately a thousand  
13 megawatts. That is what the existing plant can  
14 produce.

15 So with this array, duct fired, you can  
16 produce the same amount of power as the existing  
17 plant, and far more power at lower temperatures  
18 over the course of the year. And so in some ways,  
19 it really gets down to the question of as a  
20 replacement project, you can, in fact, replace  
21 that project with this assembly and achieve the  
22 same power output across the same load range, and  
23 much more power output at lower temperatures.

24 The other array that I want to look at  
25 is, let's say we want to expand it even more. We



1 don't want just a five-by-five array or a five-by-  
2 six array. We might want to fire up to 1300  
3 megawatts' worth of power. Well, we send one of  
4 the S207FA steam cooling requirements down to the  
5 south end, such that this is what the south end  
6 looks like in the CEC's configuration. We now  
7 have 20 cells in the south end.

8 And we reconfigure the north end. Here  
9 we have the steam turbine is here. Well, on the  
10 upper end, these two turbines, instead of having  
11 our steam turbine located over here, we put our  
12 steam turbine over here where it's reasonably  
13 close to the property line, and reasonably close  
14 to that -- actually, this is a request of Duke.

15 Okay. In this case what we're doing is,  
16 well, you don't see the plant right here, but  
17 you're putting 20 cells down here, and you're  
18 putting the other 20 cells or 30 cells or 40 cells  
19 right there (indicating). That right triangle  
20 right there, that's approximately 200 feet from  
21 the berm. If you tuck your T turbine low-  
22 temperature outlet right there, you're maybe 250  
23 feet max from that point.

24 Well, what do we have at Otay Mesa? We  
25 have got two cells, two-by-seven, that are offset

1 90 degrees right there. You could pretty much  
2 start pouring the pad for this this week. That's  
3 clean, it's identified in Duke's description as  
4 available, and that's an ideal location to do it  
5 at a 90-degree offset. At Otay they're offset 140  
6 feet, apparently, going 250 feet, 300-foot run  
7 here and splitting on a 90-degree angle can give  
8 you about 140 feet. I don't know if that's a  
9 necessary separation, but that's how you can get  
10 the equivalent.

11 So what this means is utilizing the  
12 areas that you have available to you and properly  
13 orienting these S207FAs, it opens up a lot of  
14 possibilities for optimizing those, and once these  
15 are -- and with the 200-foot separation on two-by-  
16 five banks, you're now -- if I look at this, I get  
17 down at eye level and look at it, I mean, this is  
18 a 70-foot-high tree and that's a 70-foot, slightly  
19 over 70-foot array; it's the same height as the  
20 trees.

21 Well, the moment I was going to ask the  
22 AV fellow to kick on this screen, he walked out  
23 the door, but that's what I'd like to show.

24 I wanted to point this out. This is a  
25 GEA installation. This is a cell of mine you

1       could plant in, outside of, see it at Juarez,  
2       Mexico. This particular array of these ACC units,  
3       they are 70 feet high. And this gives you a  
4       concept of that you see to the left, the heat-  
5       recovery steam generator to the immediate left of  
6       the stack, and then the turbines themselves are in  
7       that large building.

8               But that puts in better perspective what  
9       a real installation looks like when it's at 70  
10      feet height. And the -- Let me just check my  
11      notes real quick here.

12             I only had one more point to make, and I  
13      would request your permission to do this, is that  
14      preparation for the -- and this relates to this  
15      issue of noise, and in preparation for that  
16      symposium on air cooling last week we did a video  
17      documentary of the Crockett cogeneration facility.  
18      Part of that was specifically to get a feel for  
19      what is the noise impact of an operational  
20      facility that is using low-noise fans.

21             And that is what I have here, and  
22      just -- if you could show just those brief  
23      sections --

24             MR. ELLISON: Let me just say something  
25      in the interest of how long is this?

1 MR. POWERS: Four minutes.

2 MR. ELLISON: Four minutes. Okay.

3 Well, I'll just simply say Crockett cogeneration  
4 facility is a much, much smaller plant. So the  
5 noise at Crockett and the noise at this site are  
6 completely different. I really have to say, I  
7 think it's totally irrelevant.

8 MR. POWERS: These are three-by-five  
9 cell arrays, or it's a three-by-five cell array at  
10 Crockett.

11 (Video begins.)

12 UNIDENTIFIED SPEAKER 1: Okay. What  
13 you're looking at is the ACC section of the  
14 turbine building. The white section is the, like,  
15 wind wall of the ACC. You can also see right  
16 below that is the shrouding of some of the fans on  
17 the south side. We are on the east side of a  
18 turbine building looking west and north.

19 And I can hear very little at this  
20 point. The decibel level here is something on the  
21 order of less than 70, and up at the houses it's  
22 on the order of about 55.

23 UNIDENTIFIED SPEAKER 2: Things you may  
24 want to pay particular attention to when you get  
25 there is the shape of the fan blades. These are

1 very low-noise fans.

2 UNIDENTIFIED SPEAKER 1: These are the  
3 Alpina fans?

4 UNIDENTIFIED SPEAKER 2: They're Alpina  
5 fans, and specially shaped blades.

6 (Video stops.)

7 MR. POWERS: We're moving on. What  
8 we're going to do now is just go up on the fan  
9 deck and get right next to the fans and you get  
10 the same, essentially take a look at the same or  
11 make our own judgment call on the noise levels  
12 that we're getting at the fans.

13 (Video resumes at an inaudible level.)

14 (Video stops.)

15 MR. POWERS: This is the last minute and  
16 a half we're going to look at, but what we did  
17 was, after doing that, we walked up into the  
18 housing, the fan housing and we ran a test. We  
19 took a fan that was offline, we stood next to it,  
20 and that's what you'll see here in a moment.  
21 Turned it on to see, you know, what is the noise  
22 level right at the fan, just to get -- make our  
23 own qualitative assessment.

24 (Video resumes, inaudibly.)

25 (Video stops.)

1 HEARING OFFICER FAY: Okay, Mr. Powers,  
2 you need to wrap it up.

3 MR. POWERS: That's it.

4 HEARING OFFICER FAY: Okay. Thank you.

5 Is the witness available for cross-  
6 examination?

7 MR. NAFICY: He is, as soon as he takes  
8 his seat.

9 HEARING OFFICER FAY: Okay.  
10 Mr. Ellison?

11 MR. ELLISON: Mr. Fay, rather than  
12 cross-examination, given that CAPE was given the  
13 opportunity to do surrebuttal, it would be a lot  
14 more efficient if I could just ask Mr. Ortega and  
15 Mr. Poquette to respond to Mr. Powers' testimony  
16 very briefly and waive cross-examination.

17 HEARING OFFICER FAY: And waive cross-  
18 examination?

19 MR. ELLISON: And waive cross-  
20 examination. I think, since we've got surrebuttal  
21 and new evidence coming in, I think the most  
22 efficient thing and the best thing for the record  
23 would be if Mr. Ortega and Mr. Poquette could  
24 respond to what Mr. Powers was saying.

25 HEARING OFFICER FAY: Keep it within ten

1 minutes.

2 MR. ELLISON: Yes.

3 HEARING OFFICER FAY: We'll indulge you.

4 MR. ELLISON: Mr. Ortega, could you  
5 response to what Mr. Powers just testified?

6 MR. ORTEGA: Yes, I'd like to. But I  
7 guess what I really need is more of a  
8 clarification. When you said here is now 20-cell  
9 air-cooled condensers, could you tell us, one,  
10 does it meet the same performance as the other  
11 options that have been looked at by the staff and  
12 similar to Duke's? And also, what noise level  
13 does this new configuration meet with, using I  
14 guess as you said replacing the air-cooled  
15 condenser with only low-noise fans?

16 MR. POWERS: This configuration is the  
17 CEC base case configuration, which is a four-by-  
18 twenty array. Is that --

19 MR. ORTEGA: Okay. So I just wanted to  
20 make sure. Now, when you have two, say you have a  
21 four-by-five configuration which you've cut in  
22 half, okay, but while they're placed together, as  
23 you had them a while ago on the other side, what  
24 was the overall height of that unit?

25 MR. POWERS: That was a question

1       actually for you. I had brought these cups  
2       together, and was going to add an inch, which  
3       would have added ten feet to them.

4               MR. ORTEGA: Okay. Yeah, I was thinking  
5       on a larger scale, it seemed to me you said that  
6       it would be on the order of 70 feet, and --

7               MR. POWERS: Only for the split. Only  
8       for the two-by-five split by 200 feet.

9               MR. ORTEGA: So what we're looking at  
10      here, if those two units are split by 200 feet --

11              MR. POWERS: Right.

12              MR. ORTEGA: -- okay, you're saying the  
13      height would be approximately 70 feet.

14              MR. POWERS: Based on what you supplied  
15      back in February.

16              MR. ORTEGA: Okay. And you're saying  
17      that to meet the same configuration or if you look  
18      at your base case, you would also have two of  
19      these units over on the other side of the plant.

20              MR. POWERS: Right. This would be one  
21      two-gas-turbine single-steam-turbine block.

22              MR. ORTEGA: Okay.

23              MR. POWERS: This would be providing the  
24      cooling for that turbine. The other one would be  
25      located in the northeast.



1           MR. ORTEGA: All right. And also, you  
2       said that, or you said that you could get a ten-db  
3       reduction in noise for the condenser --

4           MR. POWERS: Right.

5           MR. ORTEGA: -- but I'm not sure what  
6       was the original base line versus what --

7           MR. POWERS: The original base line  
8       would be the standard case that the CEC presented  
9       for a four-by-five array. And it would be in lieu  
10      of going to a, adding another five cells, going to  
11      25 cells and following the mitigation that they  
12      indicate in the FSA, it would be adding low-noise  
13      fans, gearbox enclosures, gearbox mounting pads,  
14      to drop ten db from that standard.

15          MR. ORTEGA: Okay. So if the original  
16      or if the previous five-by-five configuration that  
17      was noise-mitigated, if it was determined that  
18      that, based on these preliminary estimates, hit  
19      spot on the 45-dba at the nearest noise receptor,  
20      what is the equivalent noise that this  
21      configuration would give at the noise receptor?

22          MR. POWERS: Don't have the answer.  
23      That would have to be investigated as one of the  
24      optimization options for the site.

25          The purpose of doing that was to point

1 out that, to use the vernacular, there are many  
2 ways to skin a cat, there are many ways to  
3 optimize. And I made the statement at an earlier  
4 hearing, but there is a great difference when  
5 engineering talent is employed to avoid doing  
6 something as to when engineering talent is  
7 employed to get the job done.

8 And, I mean, there is a tremendous  
9 amount of talent in this room right now. It's not  
10 directed at optimizing ACC, but if it were  
11 directed at optimizing ACC, I think we would see  
12 something like this.

13 MR. ELLISON: Mr. Poquette, do you want  
14 to add anything?

15 MR. POQUETTE: Yes, I would.

16 Mr. Powers, are you aware that the  
17 proposed project has a specific plot plan design  
18 of a mirror image for the purpose of noise  
19 mitigation for the entire plant, even prior to any  
20 ACC configuration?

21 MR. POWERS: I am aware that I looked at  
22 several configurations in the CEC's plot plans.  
23 My understanding is that you might have to run  
24 more noise profiles.

25 MR. POQUETTE: No. Let me rephrase the

1 statement. In previous document submittals, there  
2 have been a number of plot plan configurations  
3 considered, both with the City, the community,  
4 etc. But the key issue is, the one that we have  
5 which is the mirror image of the Hersigs and the  
6 combustion turbines, etc. was specifically chosen  
7 for two reasons: one, that's what the community  
8 wanted, but in addition to that, it was the only  
9 configuration we had developed to date that would  
10 actually get us to a compliance with LORS.

11 So the point I would like to make is by  
12 moving the steam turbine out and breaking that  
13 configuration up, we clearly have impacted the  
14 noise profile for the plant, and very likely, some  
15 of the lost shielding could be in a non-noise-  
16 compliance, and so the point I guess I want to  
17 drive is it's not that easy to just say let's move  
18 this here or there.

19 Further, you made a comment on the tape  
20 or someone made a comment on the tape that it was  
21 70 dba at the fans and 55 dba at the homes. And  
22 unless I'm mistaken, and I would either have  
23 Mr. Mantey or the City correct me, I believe that  
24 the local LORS compliance is 50 at 400 feet and 45  
25 at night at 400 feet which this plant will have to

1       comply with. And the fact that 55 or 60 may be  
2       quieter than the plant we have today, that doesn't  
3       put us in compliance with LORS. So that certainly  
4       has to be taken into account.

5               Another comment you made regarding  
6       distances, earlier there was testimony provided  
7       this morning during the block model review that  
8       there was 575 feet from the bottom of the berm to  
9       the PG&E property line. I'm not sure where you  
10      scaled the dimension from, but that is a physical  
11      tape number that was testified to this morning.  
12      So the fact that we're dealing with 600 feet or  
13      so, we don't have 600 feet. There's 575 feet.

14             And the last comment I guess I would  
15      make is you made several statements regarding  
16      Duke's costs that had been identified,  
17      particularly used the reference of one in terms of  
18      the concrete. And I believe your comment was even  
19      if you put concrete completely under the ACC, a  
20      million dollars. Well, there's two things that I  
21      think you need to consider there that you probably  
22      have not. Number one, this is an earthquake zone  
23      four condition. You will not be able to cover  
24      this with just a pad. You will have a very large  
25      number of drilled piles. These are the augur-type

1       quiet piles but will be substantial 50-, 60-foot-  
2       deep piles. And it is several millions of  
3       dollars, as on a number of the other site  
4       constraint costs that have gone in to build this  
5       up.

6               The last point which we have addressed  
7       in the cost area that I think you may have not  
8       fully considered in your statement of Duke's cost  
9       of \$200 million is the IDC cost of \$80 million, I  
10      believe the number is, for the schedule delay and  
11      being attributed to the ACCs. The fact of the  
12      matter is, if the schedule is extended due to  
13      constructability impacts that are strictly and  
14      solely attributed to the ACCs, then it becomes a  
15      component cost of the ACC in terms of the total  
16      picture.

17              So with that, that's the last of the  
18      comments I have.

19              MR. ELLISON: Okay. Let me just --

20              MR. POWERS: Can I respond to that?

21              HEARING OFFICER FAY: No. No, I'm  
22      sorry, Mr. Powers, you cannot.

23              MR. ELLISON: Let me just ask one  
24      question and then make one quick statement.

25                      CROSS-EXAMINATION

1 BY MR. ELLISON:

2 Q The question is, for Mr. Powers, you do  
3 not know whether this would comply with the City's  
4 noise ordinance, correct?

5 A Correct.

6 Q Okay.

7 MR. ELLISON: And the statement that I  
8 want to make, on behalf of the entire Duke panel,  
9 is Mr. Powers made a statement about there's a lot  
10 of talent in this room and if that talent were put  
11 to optimizing this thing instead of trying -- the  
12 implication that he made was that people are  
13 somehow shading the truth.

14 I just want to be very clear, on behalf  
15 of this panel. These people are under oath.  
16 Mr. Ortega has come here on his own -- He doesn't  
17 even work for Duke -- to testify under oath that  
18 they do not think they can do it. They do not  
19 think it's feasible. And if anybody has any  
20 reason to think otherwise, they've been under oath  
21 and subject to cross-examination all day long.

22 HEARING OFFICER FAY: Okay, thank you.

23 Does the staff have any cross-  
24 examination of the CAPE witness?

25 MS. HOLMES: No.

1 HEARING OFFICER FAY: City?

2 MR. ELIE: Briefly.

3 CROSS-EXAMINATION

4 BY MR. ELIE:

5 Q Mr. Powers, you have not analyzed the  
6 land use implications of your design, have you?

7 A I have not.

8 Q Now, you had a comment about Mr. Clay's,  
9 or Dr. Clay's comment on your testimony. I want  
10 to be sure that we understand what Dr. Clay is  
11 saying and what you're saying. Your sentence in  
12 page two of your letter to Mr. Naficy says, quote,  
13 "At a minimum, the CEC should give the three major  
14 ACC manufacturers," and you list them, "specific  
15 guidelines on what height will eliminate  
16 significant visual impacts."

17 So you have not conducted that analysis,  
18 correct?

19 A I have conducted that analysis, but I  
20 think it should be corroborated by those three  
21 vendors.

22 Q What do you believe is the specific  
23 height that will eliminate significant visual  
24 impacts?

25 A Are you asking for my qualitative

1 assessment of what would eliminate visual impacts?

2 Q Yes.

3 A I will give you that qualitative  
4 assessment if you would like it, and that is if  
5 you construct these at 70 feet, your visual  
6 impacts are fully mitigated. Your trees, which  
7 were very nicely constructed, if you look at that  
8 at ground level, you do not see the ACC through  
9 the trees.

10 Q And what about the rest of Morro Bay,  
11 which is elevated and looks down on this plant?

12 A I will leave my comment at that.

13 Q Okay. And, of course, none of these  
14 three manufacturers has given you assurances that  
15 they are willing to integrate that height  
16 reduction into an ACC design.

17 A I have not asked them to do so.

18 Q Has anyone?

19 A They have built ACCs at heights as low  
20 as 65 feet, so I presume that some people have.

21 Q That would comply with this noise -- Oh,  
22 I mean anyone on this project. For example, has  
23 CEC staff asked that, tried to get it down to that  
24 height?

25 A No, they have not.



1 Q Okay, and would that height comply with  
2 the noise element in Morro Bay?

3 A I do not know.

4 Q Now, in one of your arrays you put one  
5 of the ACC designs on the other side of the  
6 Hersigs, correct?

7 A Northeast plot?

8 Q The northeast plot, correct.

9 A Yes.

10 Q Are you aware that that plot has  
11 protected ESHA?

12 A The example that I was giving is  
13 locating it in the grey area. That may, in fact,  
14 be in the protected ESHA, but it's identified in  
15 Duke's report as an area that is free for that  
16 type of development.

17 Q And did I hear someone on the tape  
18 correctly that at the time we were listening to  
19 that one fan, it was -- or that -- Let me rephrase  
20 that. When we were listening, about in the middle  
21 of your presentation, somebody said that the plant  
22 was operating at 170 to 190 megawatts?

23 A Let me explain.

24 Q Is that what the person said?

25 A Yes.

1           Q     Okay. And the proposal here, this is  
2     for a 1200-megawatt plant, correct?

3           A     I would defer that response to the  
4     engineers, because without putting it in context,  
5     it's meaningless.

6           Q     And if you were to split the ACCs, as  
7     you're suggesting, you're then introducing two  
8     additional large buildings in the view shed within  
9     the City of Morro Bay that are not part of the  
10    applicant's proposal, correct? For example, if  
11    you had -- there, they're 200 feet apart under  
12    your scenario, correct?

13          A     Correct.

14          Q     So that's two more, 70- to 76-foot,  
15    assuming everything that you've said is correct.

16          A     I would not call them two more. We're  
17    splitting the existing unit that is shown in the  
18    FSA, so we're not adding units, we are separating  
19    the unit into smaller parts.

20          Q     Well, but this is about the applicant,  
21    not the FSA. I'm talking about the AFC, which is  
22    the applicant's proposed project. You're adding  
23    two more structures of at least 70 feet in height  
24    and a football field or two in girth.

25          A     If what you're saying is we're taking a

1 large structure and splitting it into two  
2 structures and that's adding structures, then yes,  
3 that's what I'm saying.

4 Q No, I'm saying take as a base case the  
5 applicant's proposed project, which is the AFC.

6 A Okay.

7 Q And then add to that the split  
8 configuration. That's two more facilities or  
9 structures that are in the view shed that are 76  
10 feet high that are in a different location than  
11 the stacks and the Hersigs.

12 A All right. Your comment is correct only  
13 for the northeast area. This is a smaller version  
14 of what is in the AFC. This is a much smaller  
15 version of the two separate units that show on the  
16 south in the AFC.

17 Q You say the AFC contains ACC blocks?  
18 The application for certification by Duke?

19 A It does not.

20 Q Okay.

21 MR. ELIE: That's all I have.

22 HEARING OFFICER FAY: Okay. Thank you.

23 That concludes the presentation --

24 MR. ELLISON: Mr. Fay, could I ask one  
25 more question? I think it's important to

1 clarify --

2 HEARING OFFICER FAY: All right. Make  
3 it very brief.

4 MR. ELLISON: I will.

5 CROSS-EXAMINATION (RESUMED)

6 BY MR. ELLISON:

7 Q Mr. Powers, under your proposal there  
8 are four of these condensers, correct?

9 A That is correct.

10 Q So there are two across in the riparian  
11 area, plus the two that you show here.

12 A Right, that is one of the options.

13 Q And they are each, and they are  
14 separated from each other by 200 feet, right?

15 A In the case of the south side, yes. In  
16 the case of the north side, approximately.

17 MR. ELLISON: Okay, thank you.

18 HEARING OFFICER FAY: Okay.

19 Mr. Naficy, I can't offer you an  
20 opportunity for redirect because we've gone over  
21 your time by quite a bit, and then accorded Duke  
22 about half as much in this unusual colloquy, in  
23 the interest of letting you put on your case.

24 Now we're going to move to the City of  
25 Morro Bay and their presentation.

1                   Would you like to take a break at this  
2                   time?

3                   MR. ELIE:   Yeah, I need to locate my  
4                   other witness.

5                   HEARING OFFICER FAY:   Okay.   We'll take  
6                   a ten-minute break.

7                   MR. ELIE:   Thank you.

8                   (Brief recess.)

9                   HEARING OFFICER FAY:   We're back on the  
10                  record.

11                  Is the City of Morro Bay prepared to  
12                  present its direct?

13                  MR. ELIE:   Yes.   Mr. Fay, I have four  
14                  exhibits which are the prefiled testimony and  
15                  rebuttal testimony which all need numbers, so with  
16                  your permission I'll start.

17                  HEARING OFFICER FAY:   If you will name  
18                  the exhibit as precisely as you can, and I will  
19                  give it a number.

20                  MR. ELIE:   The first exhibit is  
21                  testimony of Bill Dohn, D-o-h-n, on behalf of the  
22                  City of Morro Bay regarding aquatic biological  
23                  resources, Appendix A.

24                  HEARING OFFICER FAY:   Regarding what?

25                  MR. ELIE:   Aquatic biological resources,

1 Appendix A.

2 HEARING OFFICER FAY: That's  
3 exhibit 238.

4 MR. ELIE: Next is the testimony of  
5 Robert W. Schultz, the same subject matter.

6 HEARING OFFICER FAY: On the same  
7 subject?

8 MR. ELIE: On the same subject matter,  
9 aquatic biology.

10 HEARING OFFICER FAY: Aquatic biology,  
11 and that is exhibit 239.

12 MR. ELIE: The next exhibit is the  
13 testimony of Gary R. Clay, PhD, on the same  
14 subject matter.

15 HEARING OFFICER FAY: Exhibit 240.

16 MR. ELIE: And last is rebuttal  
17 testimony of Gary R. Clay, PhD, same subject  
18 matter.

19 HEARING OFFICER FAY: That will be  
20 exhibit 241.

21 MR. ELIE: Thank you. As to  
22 exhibit 238, Mr. Dohn's testimony, counsel for all  
23 parties have stipulated that we need not present  
24 him as a live witness but could just submit his  
25 written testimony, which I'd move the admission of

1 now.

2 HEARING OFFICER FAY: Okay.

3 MR. ELIE: That's exhibit 238.

4 HEARING OFFICER FAY: I'm sorry?

5 MR. ELIE: Exhibit 238, testimony of  
6 Bill Dohn, prefiled testimony.

7 HEARING OFFICER FAY: Previously  
8 numbered?

9 MR. ELIE: You just numbered it 238.

10 HEARING OFFICER FAY: I'm sorry, that  
11 was Dohn's --

12 MR. ELIE: I want to move it into  
13 admission.

14 HEARING OFFICER FAY: Okay. I  
15 misunderstood.

16 MR. ELIE: That's okay.

17 MR. ELLISON: Actually, we'll stipulate  
18 to the admission of all of your exhibits, if we  
19 want to -- I don't know whether staff wants to  
20 save time, but --

21 MS. HOLMES: We will.

22 MR. NAFICY: CAPE will as well.

23 MR. ELIE: Well, we still want to  
24 present live testimony with the other witnesses,  
25 though.

1 MR. ELLISON: No, I know, but you can  
2 summarize them, I mean, just in terms of --

3 MR. ELIE: Right, thank you.

4 HEARING OFFICER FAY: All right.

5 MR. ELIE: Dr. Clay needs to be sworn.

6 HEARING OFFICER FAY: Okay. Please  
7 swear the witness.

8 Will the witness please stand.

9 Whereupon,

10 GARY CLAY,

11 Was called as a witness herein and, after first  
12 being duly sworn, was examined and testified as  
13 follows:

14 THE REPORTER: Please proceed, counsel.

15 DIRECT EXAMINATION

16 BY MR. ELIE:

17 Q Dr. Clay, would you please give the  
18 Commission a brief statement of your background  
19 and qualifications.

20 A Presently I'm a professor of landscape  
21 architecture here at Cal Poly in San Luis Obispo.  
22 My background is I've been teaching there for  
23 seven years. Prior to that, I was a working  
24 professional landscape architect for a major  
25 consulting firm in Ft. Lauderdale, Florida, where



1 I specialized in developing computer simulations  
2 and visualizations.

3 I've got a masters in landscape  
4 architecture, specializing in computer  
5 simulations, and my doctorate is from the School  
6 of Renewable Natural Resources, University of  
7 Arizona, where I specialized in environmental  
8 perception and understanding the visual impacts of  
9 environmental change.

10 Q Have you also testified in front of this  
11 Commission?

12 A Yes, I have.

13 Q In what proceeding?

14 A A couple of months ago I presented  
15 testimony for the City of Milpitas as far as a  
16 power plant being proposed in the San Jose area.

17 Q Now, exhibit 240 is your direct  
18 testimony and exhibit 241 is your rebuttal  
19 testimony. Taking them collectively, did you  
20 prepare those exhibits?

21 A Yes, I did.

22 Q Do you have any corrections or changes  
23 to that testimony?

24 A No.

25 Q Are the facts contained therein true and

1 correct, to the best of your knowledge?

2 A Yes.

3 Q Are the opinions contained therein your  
4 own?

5 A Yes.

6 Q And you adopt that testimony as your own  
7 here in these proceedings?

8 A Yes, I do.

9 Q Would you briefly describe the process  
10 you followed in connection with the preparation of  
11 your testimony.

12 A What I did was I looked at all the  
13 information to date. I went back to some of the  
14 original applications of certification, and then I  
15 went into some of the more recent material that  
16 was submitted; in particular, the material related  
17 to the proposal for dry and hybrid cooling. So  
18 basically, in sum total, I looked at all of that  
19 information in trying to derive my conclusions.

20 Q And have you reached some conclusions?

21 A Yes, I have.

22 Q What are those conclusions?

23 A I think from the information that was  
24 presented as far as the staff analysis of the  
25 visual impacts of dry or hybrid cooling, in some

1 cases it's a little bit problematic to come up  
2 with a definitive answer on will, in fact, there  
3 will be a visual impact or not, and that is  
4 because there is insufficient information that's  
5 been presented.

6 So what I've tried to do is I've tried  
7 to thread together as much as possible the  
8 information there, and then come up with some sort  
9 of an understanding of what I think. I think,  
10 when you get right down to it, no matter how you  
11 slice it, I think dry cooling represents some huge  
12 or some substantial industrial-type structures on  
13 site. And I think because of that it could  
14 present some significant negative visual impacts  
15 for the City and for the community.

16 I think that there are a couple of  
17 reasons why I've reached that conclusion, not only  
18 just the size itself, but I think the shape. I  
19 think it's a fairly mundane rectangular shape  
20 that's going to be located close to the rock. I  
21 think that represents a potential shall we say  
22 visual threat to the tourism potential of Morro  
23 Bay, because Morro Rock is viewed as a significant  
24 visual attribute for the region.

25 I think that another thing that needs to

1 be reviewed is, again, is that the general shape  
2 is such that in many ways it could be construed as  
3 either as extremely large industrial warehouse or  
4 potentially some sort of a big box store in the  
5 region. And I think if you understand this region  
6 in general, it's as if there are a lot of buttons  
7 that tend to be pushed when, in fact, you describe  
8 this large big-box store or large big-box  
9 industrial development is placed on a site, and  
10 it's something that I truly don't think would be a  
11 positive attribute for the community, as far as  
12 the overall visual characterization of Morro Bay.

13 Q Have you reviewed staff's tables 13  
14 through 16, which is part of exhibit 197, FSA,  
15 part three?

16 A Yes, I did.

17 Q What is your testimony with respect to  
18 those tables and staff's conclusions?

19 A Well, I find the conclusions a bit  
20 contrary to what those tables argue, because in  
21 those tables they present six viewpoints that were  
22 analyzed. First of all, only one viewpoint seems  
23 to be presented in the evidence.

24 But in those six tables they  
25 systematically state that three of the potential

1 six used represent a significant negative visual  
2 impact, and then the other three seem to be fine.  
3 Then they come out in the final recommendation and  
4 say when that is all added up, there seems to be a  
5 net positive gain. And I don't quite understand  
6 the correlation between the evidence in the tables  
7 and how, in fact, the summary statement was  
8 derived. There seems to be either some ambiguity  
9 in that, or there was some procedure used to  
10 derive that, which I truly don't understand.

11 Q So in your view of the tables, three and  
12 three does not equal a better design?

13 A Again, it's very difficult because there  
14 is insufficient evidence presented. From my point  
15 of view, more or less my expert opinion is that I  
16 think that is true.

17 Q Did you also have some testimony  
18 concerning the distinction between the ACCs as  
19 proposed by staff and the project as proposed by  
20 Duke?

21 A Yes. Again, there seems to be some  
22 ambiguity or some level of contradiction there,  
23 and it's difficult to really understand exactly  
24 how big this structure is going to be. It seems  
25 that the applicant, from the applicant's point of

1 view, the structure is going to be a different  
2 size than from the staff's point of view.

3 Again, trying to piece all this  
4 together, what this means, again from my point of  
5 view, no matter how you slice it, we are talking  
6 about a huge building or possibly a couple of huge  
7 buildings. And I think it would be very, very  
8 difficult to argue that these structures would not  
9 in some way represent some negative visual impact  
10 on the landscape.

11 Q Let's move to your rebuttal testimony  
12 briefly. You've reviewed Mr. Powers' letter,  
13 which is dated May 11th?

14 A I did.

15 Q Do you have some testimony concerning  
16 that letter?

17 A Yes, I do.

18 Q What is that?

19 A I think Mr. Powers presents some  
20 interesting ideas, and I think in a perfect world  
21 I think if Mr. Powers could produce basically what  
22 was described there, I think it could potentially  
23 be a beneficial thing. I think that certain  
24 things that to me a problematic, as an example,  
25 there are a lot of statements that bring up

1 something like a certain vendor could possibly do  
2 this, or potentially this might happen, or as an  
3 example, one of the issues that Mr. Powers brings  
4 up, and again, I'm paraphrasing this, there is  
5 something about that if, in fact, either the City  
6 of Morro Bay or the staff, I forget exactly who  
7 brings it up, brings up some height requirement --  
8 I believe he calls it X -- then, in fact, that  
9 could be incorporated into the design of the ACC  
10 to try to minimize any visual impacts.

11 I think, again, in a perfect world that  
12 is fine, but what happens, as an example, if  
13 someone comes back and says that the only way to  
14 mitigate the visual impacts of that is that the  
15 ACC cannot be over five feet tall. Can, in fact,  
16 the vendors do that? So I guess the problem that  
17 I have is Mr. Powers' letter somehow implies that  
18 there is a certain magical or a certain ability on  
19 the vendors' parts to make it any height that is  
20 required, and it will happen.

21 And I just didn't see any empirical  
22 evidence that that, in fact, is true.

23 Q Now, Mr. Powers comes up with a  
24 conclusion in his testimony that the ACC blocks  
25 could be as low as 70 feet. What is your response

1 to that?

2 A Well, again, we don't know for a fact  
3 that is true, but even if it was true, I think it  
4 still represents a challenge, to put it best, as  
5 far as mitigation of that. I think if you were to  
6 try and mitigate a building that's going to be 3-,  
7 4-, 500 feet long, and 70 feet tall, and then to  
8 say you'll plant trees around it. I mean, you're  
9 either going to plant mature Sequoias, or you're  
10 going to build some massive mounding system around  
11 it. I just don't know how it's going to happen.

12 Again, even if it was 70 feet tall,  
13 you're looking at a heck of a big building. And I  
14 don't quite understand how that impact is going to  
15 be mitigated.

16 Q Thank you.

17 MR. ELLISON: Now I'd like to move to  
18 Mr. Schultz's direct.

19 BY MR. ELIE:

20 Q Mr. Schultz, is exhibit 239 -- Well,  
21 your background is well known.

22 MR. ELIE: I don't know that I have to  
23 go through who he is, I think the Commission is  
24 familiar with him.

25 BY MR. ELIE:



1           Q     Is exhibit 239 your testimony on this  
2 subject matter?

3           A     Yes, it is.

4           Q     Did you prepare it yourself?

5           A     Yes, I did.

6           Q     Are the facts contained therein true and  
7 correct, to the best of your knowledge?

8           A     Yes, they are.

9           Q     Are the opinions contained therein your  
10 own?

11          A     Yes.

12          Q     Do you adopt exhibit 239 as your  
13 testimony here?

14          A     Yes.

15          Q     Would you briefly give background to the  
16 Commission on the City's study and position on dry  
17 cooling, including Council and Planning Commission  
18 resolutions.

19          A     Well, I guess I'll start off where my  
20 testimony starts off, and just as it relates to  
21 the dry cooling or alternative cooling methods,  
22 and then I'll go in a little later as to the  
23 entire process and how long we've been at this.

24                 The City of Morro Bay has been looking  
25 closely at the alternative cooling since last

1 summer, in August. And you had public hearings,  
2 it went to the Planning Commission and then to the  
3 Morro Bay City Council, and after looking closely  
4 at the issues, passed resolution 57-01, which  
5 opposed methods which would cause or exacerbate  
6 adverse effects on visual, noise, air quality,  
7 socioeconomics, and other local resource compared  
8 to the proposed project. And that's already been  
9 docketed as exhibit 96.

10 The Planning Commission also passed a  
11 resolution -- I'll make it short, I'm not going to  
12 read that resolution, but again, opposing dry  
13 cooling that would cause an unsightly and  
14 unnecessary visual blight on the community. And  
15 then just recently the City Council passed  
16 resolution number 72-01, and found that the  
17 alternative cooling methods set forth in the CEC  
18 staff draft report would adversely affect the  
19 City's beauty and uniqueness, and would cause or  
20 exacerbate adverse effects on visual, noise, air  
21 quality, health, socioeconomics, hazardous  
22 materials, traffic and transportation, and other  
23 local natural resources, compared to the proposed  
24 project.

25 Primarily our City's concerns is that,

1 and with the staff's report not only in the draft  
2 but in the final is that it is conceptual and it  
3 has not been optimized. The testimony, both  
4 written and orally, has stated that on page 22 and  
5 24. So the City has tremendous concerns on a  
6 conceptual design and what that implication would  
7 be to the City.

8 The summarization in the FSA staff  
9 report that we agreed on is on page 9 and 12,  
10 which states that the dry cooling requires air-  
11 cooled condensers and could have a negative visual  
12 effect. And compared to once-through cooling, the  
13 dry cooling requires the disturbance of several  
14 acres of additional upland areas for air-cooled  
15 condensers. The dry cooling can have noise  
16 impacts that are greater than the once-through  
17 cooling.

18 So there are many elements that the City  
19 was terribly concerned of, as opposed to the  
20 proposed project, and has continually stated that  
21 it is against any of the alternative methods. I  
22 do go through in my testimony and detail the noise  
23 issues and the noise elements that we're concerned  
24 with, in making sure that they can make that noise  
25 ordinance.

1           From a history standpoint, the current  
2   plant is exempt from our noise ordinance because  
3   it was built before we adopted our noise  
4   ordinance. Through this process we will finally  
5   be able to have a plant that will have to comply  
6   with the noise ordinance, and to think that under  
7   a dry cooling or an alternative cooling method  
8   that it would not meet our noise ordinance to us  
9   would be going in the opposite direction of where  
10   we want to head with this proposed plant.

11           There are cultural resource issues that  
12   are also developed -- I guess with visual I go  
13   into quite a few visual policies, and where my  
14   concern was is that during the entire FSA the CEC  
15   staff did an excellent job of taking all of the  
16   City policies and local LORS, and setting forth  
17   each one and showing how the proposed project was  
18   going to be consistent.

19           But when we came to the cooling options,  
20   it's just, it's void. They do not go through  
21   every single one of our visual policies and our  
22   public resource policies and set those out and  
23   explain to us how the scenic and visual qualities  
24   of the coastal area shall be considered and  
25   protected as a resource of public importance.

1 They did that through the FSA for the proposed  
2 project, but they failed to do that, and all they  
3 said was that the visual impact will be  
4 significant, but we can mitigate it, without  
5 telling us how it can be mitigated. So for those  
6 reasons, we've been opposed to the dry cooling.

7           Going into the land, the specific land  
8 use issues and the various roles that play, I'll  
9 go back to the history a little bit of where we've  
10 been. In 1999 is when Duke filed its first AFC  
11 and that first AFC had the current plant still  
12 remaining on site, and proposed to install two  
13 units, and then operate unit three and four. That  
14 project was completely unacceptable to the City.  
15 We immediately let Duke know that it was  
16 completely unacceptable to the City, and Duke's  
17 first reaction was so what, we're moving forward  
18 with the Energy Commission, the City doesn't have  
19 any jurisdiction.

20           And the City said, well, wait a minute,  
21 we have many agreements that are necessary, access  
22 agreements, road agreements, the outfall lease  
23 agreement that you're going to need approval from  
24 the City to obtain site control. And we're not  
25 going to give you those approvals with the

1 proposed project, which was at that time leaving  
2 the existing plant and creating another plant.

3 Duke finally realized that the City was  
4 a player and they needed our agreements and  
5 withdrew that first application and filed a second  
6 application after I think it was over 15, 16  
7 workshops going through the various configurations  
8 of the proposed plan, where the units would sit,  
9 and working out our various agreements which  
10 exchanged not only Duke giving us valuable land  
11 swaps in exchange for these access agreements.

12 So it's been a very long process for the  
13 City to accept the modernization under the  
14 proposed project, and at no time were there  
15 discussions regarding the dry cooled proposal  
16 that's now in front of the Commission.

17 Q Would you briefly testify concerning the  
18 City's concern about the coastal-dependent uses  
19 for this property.

20 A We find that, as far as consistency is  
21 required, the Commission is going to have to make  
22 two overrides from the City's position. The first  
23 one would be under the municipal code where it  
24 states under Municipal Code 1724150 that "thermal  
25 power plant and support facilities which must be

1 located on or adjacent to the sea in order to  
2 function," and then in that same section, where it  
3 states that "industries which require a site on or  
4 close to the ocean harbor can locate and operate  
5 while maintaining an environment minimizing  
6 offensive or objective noise, dust, odor or other  
7 nuisances."

8           These two sections, you just can no way  
9 find will be consistent anymore, since this plant  
10 with alternative cooling could exist anywhere  
11 else. We don't have any of the exceptions in our  
12 zoning code that are also in the Coastal Act, and  
13 the way that staff has gotten around the Coastal  
14 Act or our local coastal plan are not in our  
15 zoning ordinances, and we don't see how that could  
16 possibly be consistent with our zoning ordinance,  
17 so an override will be necessary because it's not  
18 consistent with our zoning ordinance.

19           The other area is dealing with the  
20 replacement and repair. The proposed project has  
21 been classified either as a modernization or  
22 replacement. Whichever definition you take, it  
23 did not require an amendment to our LCP because it  
24 was not classified as an expansion. It's the  
25 City's position that with the alternative cooling

1 methods put on this project, it is no longer a  
2 replacement, it is no longer a repair, it's no  
3 longer a modernization. It is an expansion.

4           You are expanding this project from a  
5 small only 30-foot-tall once-through-cooled  
6 building into massive structures, and that is  
7 considered an expansion, which under our LCP will  
8 require an amendment. And if the City would not  
9 allow that amendment, then the Commission would  
10 have to override.

11           And I assumed staff was heading that way  
12 with reclassifying ads and an expansion in their  
13 testimony when they state that the Coastal  
14 Commission can get around the fact that it's no  
15 longer needed on a coastal-dependent use by  
16 claiming that it's a new or expanded coastal-  
17 dependent industry facility. And by saying it's  
18 an expanded facility, which I believe they're  
19 trying to state that in their testimony as a way  
20 that the Coastal Commission can get around the  
21 coastal-dependent use.

22           Then you're back to the fact that once  
23 it's an expansion, you are going to need an  
24 amendment to our local coastal plan, which, again,  
25 goes back to the fact that if the City does not



1 grant that, then there would have to be an  
2 override.

3 So I see two areas that there will  
4 either -- that are inconsistent, and an override  
5 will be necessary. And that's with our zoning  
6 ordinance and that's with our local coastal plan,  
7 because it will now be classified as an expansion.

8 Q Briefly summarize the threshold biology  
9 issues that were raised by ACC and hybrid designs.

10 A There are quite a few that are in the  
11 ESHA area, and I'm not going to go into detail  
12 because I think everybody agrees that design in  
13 that area over there can't be configured.

14 But there are many policies that I  
15 listed in my testimony dealing with threshold  
16 biology, and again, it's more the fact that CEC  
17 did an incredible job with each of sections as to  
18 the proposed project, but then when it came to the  
19 cooling options, they ignored almost every single  
20 policy possible, not only in the local coastal  
21 plan but in the Coastal Act.

22 Q There have been several references today  
23 to the City's position concerning dry cooling and  
24 what Duke would need to do or get from the City in  
25 order to accomplish ACC, for example easements.

1 Would you describe some of those requirements that  
2 would be needed from the City that are not, in  
3 your opinion, subject to override by the  
4 Commission.

5 A Well, under the Warren-Alquist Act, and  
6 this goes more to when they kind of prove it, and  
7 the issue of maybe you're sitting on the fence and  
8 leaving that door open, and under the Warren-  
9 Alquist Act, you can't approve the project unless  
10 a public agency having ownership or control, the  
11 land has been obtained, and that's under the  
12 25526.

13 And as we sit here today, they don't  
14 have site control over numerous components of the  
15 dry cooling, and I cannot envision the City  
16 granting those access agreements based on the last  
17 three years of negotiations. They include the  
18 access road that we discussed yesterday. It's not  
19 a right-of-way, it's private property that the  
20 City owns, it's never been a dedicated street.  
21 And, therefore, Duke needs an easement for egress  
22 across that access road.

23 The bridge will require an easement  
24 agreement also from the City. There is also the  
25 access road going into the plant that crosses over

1 City property that's not even developed at this  
2 point in time.

3 A new issue that just came up would have  
4 to do with the fencing. All of the fencing will  
5 require a comprehensive agreement because it will  
6 be placed on City property. The City has no  
7 reason to enter into those agreements based on  
8 going back to our principal objective, when we got  
9 Duke to withdraw the initial AFC, and that was,  
10 our primary objective was to eliminate the visual  
11 blight, the visual problems associated with the  
12 existing plant.

13 And counsel has said that a plant with  
14 dry cooling or alternative cooling is really just  
15 taking the existing blight and moving it from one  
16 end of the property to the other end of the  
17 property, and then extending the life -- There has  
18 been testimony as to how long the life of the  
19 existing plant would be, but I think everybody  
20 agrees that one thing is for certain: a proposed  
21 plant with dry cooling would last much longer than  
22 the existing plant.

23 So the City feels that if you had to  
24 pick between a proposed plant with alterative  
25 cooling and the existing plant, I believe the City

1 Council, although they have never passed a  
2 resolution to that effect, will stick with the  
3 existing plant and see how long the life of it is.

4 I guess my only last comment would have  
5 to do with the hybrid testimony, and the City has  
6 done many studies about reclamation. I guess I'd  
7 begin with the facts in the FSA are incorrect,  
8 although the maximum capacity of the plant might  
9 be two million gallons per day. It operates only  
10 on 1.1 million gallons per day, and again, 60  
11 percent of that capacity is only owned by the  
12 City, and 40 percent is owned by Cayuca. So there  
13 is a tremendous less amount of water than as  
14 portrayed in the FSA.

15 And then water is a very needed  
16 commodity within the City, and if any reclamation  
17 project is going to be done in the City of Morro  
18 Bay, it's going to be done probably for recharging  
19 the basins upstream and not allow for the  
20 reclamation projects to be used for Duke. That  
21 would go against all of our studies being done to  
22 recharge the basins so we can have added water for  
23 the community.

24 So under any circumstances I really  
25 can't imagine the City being able to allow Duke to

1 use reclaimed water when the need is more  
2 prevalent for the citizens of Morro Bay.

3 Q Now, we've heard a lot of testimony in  
4 these proceedings about the agreement to lease.  
5 Would the alternative cooling as suggested by  
6 staff comport with the agreement to lease between  
7 the City and Duke?

8 A No. It would have to be thrown out  
9 completely, because there are many components in  
10 the agreement to lease, to talk about the  
11 objective being made. And it just wouldn't comply  
12 with any of the terms and conditions of that  
13 agreement to lease.

14 MR. ELIE: Mr. Fay, at this time I need  
15 one more number, which is one of the exhibits  
16 referenced in Mr. Schultz's testimony. It's  
17 Planning Commission Resolution Number 01-01.

18 HEARING OFFICER FAY: That will be  
19 exhibit 242.

20 MR. ELIE: Okay, and we will docket that  
21 if it hasn't already been docketed.

22 With that, I'd move the admission of  
23 exhibits 238 through 242.

24 HEARING OFFICER FAY: Any objection?

25 All right. We'll receive those.

1 MR. ELIE: The witnesses are available.

2 HEARING OFFICER FAY: Please be sure the  
3 court reporter has copies of the exhibits.

4 Any questions from the applicant?

5 MR. ELLISON: No.

6 HEARING OFFICER FAY: Okay. From the  
7 staff?

8 MS. HOLMES: No.

9 HEARING OFFICER FAY: CAPE?

10 MR. NAFICY: Yes, I do have a few  
11 questions, and I just wanted to note that it's a  
12 quarter to 5:00, so we don't seem -- I mean, I  
13 don't plan on going very long, but we don't seem  
14 to be operating under any dire time constraints at  
15 this point.

16 HEARING OFFICER FAY: I did ask you if  
17 you wanted to cross-examine.

18 MR. NAFICY: No, I understand, I just  
19 wanted to verify that we seem to be ahead of  
20 schedule --

21 HEARING OFFICER FAY: Yes. Taking that  
22 into account, I'm giving you an opportunity to  
23 cross-examine.

24 MR. NAFICY: Thank you. I'll try to be  
25 brief anyway.

## CROSS-EXAMINATION

BY MR. NAFICY:

Q Dr. Clay, I think I'll begin with you.  
You characterized that -- You told us the boxy  
shape of the dry cooling units were objectionable,  
because I think you said they're shaped like a  
large, they make the place look like a, the plant  
look like a large industrial site; is that  
correct?

A I think that's a paraphrase, yes.

Q Well, isn't it, in fact, a large  
industrial site?

A Yes, it is. I think one of the -- well,  
a couple of the problems is this, is that if you  
look at the alternative cooling structure it's  
actually different, in not only the composition  
but its look, from the proposed plan  
modernization.

I think, from my point of view, that  
would conceivably bring up the visual impression  
to, let's say, a casual visitor or a tourist to  
the area, that possibly the City has opened up  
some type of an industrial park where maybe  
several different industrial facilities are  
permitted there and are being built.

1           I think what that does is that conjures  
2   up the image that the City is, in fact, advocating  
3   industrial development close to the Rock and  
4   potential new industrial development close to the  
5   Rock. I think, from a point of view of tourism  
6   and tourism potential, to me that is a significant  
7   potential threat to the future of the City.

8           Q     Well, first of all, aside from the fact  
9   that you seem -- I mean, your speculation seems to  
10  be kind of far afield about what the actual viewer  
11  may see. I mean, this --

12           MR. ELIE: Is that a question?

13           MR. NAFICY: Well, that's the preface to  
14  my question.

15           MR. ELIE: Well, can we get to a  
16  question instead of counsel testifying?

17           HEARING OFFICER FAY: Yeah, let's not  
18  characterize, just ask a question.

19  BY MR. NAFICY:

20           Q     Is this potential threat to tourism what  
21  you find objectionable, primarily?

22           A     I think, please someone correct me if  
23  I'm wrong, but Morro Bay has a, tourism is a  
24  significant economic element of Morro Bay's  
25  vitality, so I think if tourism was threatened, I



1 think that we would potentially have a significant  
2 problem with the City as far as its annual  
3 revenues.

4 Q I'm sorry, we're not debating whether  
5 tourism is important to Morro Bay. What we're  
6 debating is, or what I'm asking you is if this  
7 threat, potential threat is what you find  
8 objectionable about the appearance of the dry  
9 cooling units.

10 A I think that's one of the things. I  
11 think another thing is, is the fact that it's a  
12 large rectangular mass close to the Rock. And I  
13 think that, again, represents a significant visual  
14 threat to the area. You know, over the last  
15 couple of weeks I've actually been going around to  
16 a lot of the shops in Morro Bay and looking at all  
17 of the postcards and looking at the calendars, and  
18 looking at all the mats that you put on the table,  
19 and all of them very neatly, when, in fact, the  
20 photograph is taken, it shows the harbor and the  
21 Rock, and very neatly hides the power plant off to  
22 the side.

23 It seems that this right here  
24 (indicating) would be a significant step  
25 backwards, whereby a large industrial structure

1 would be placed even closer to the Rock. So I  
2 think what would happen would be the visual  
3 impression or the visual image that people would,  
4 in fact, take home with them after an experience  
5 here, would be one where industrial development  
6 was happening closer to the Rock than what it was,  
7 and I think that would be found objectionable by a  
8 majority of the people.

9 Q Okay. I think I understand your  
10 testimony, but you do agree, don't you, that any  
11 future postcards would also not include a picture  
12 of the modernized plant; is that correct?

13 A It might; I don't know.

14 Q Let's talk about that. Do you believe  
15 that that is anything, looks anything, without the  
16 dry cooling looks anything but like a large  
17 industrial plant? What does that look like to  
18 you?

19 A I think the issue is, correct me if I'm  
20 wrong, but the issue is, from my point of view,  
21 what is the visual impact of dry cooling. I think  
22 if you look at that image right on the screen  
23 right there, I would say to you that, in fact, the  
24 addition of dry cooling adds a significant  
25 industrial structure to that scene, so, therefore,

1       there is a probability that someone might construe  
2       that additional industrial development took place.  
3       And I think people would find that objectionable.

4           Q     I understand that, Dr. Clay, and I'm  
5       really sorry if I seem tired and curt, but please,  
6       I'm trying to get you to answer my question, which  
7       is only about the plant without dry cooling. I  
8       understand that the City asked you to do certain  
9       analyses. What I'm asking you now is that, and if  
10      you could please put out that image without the  
11      dry cooling, thank you, does that look anything  
12      but -- does that look like an industrial site to  
13      you?

14                   And that's really a simple question.  
15      It's not a tricky one, just does that look like an  
16      industrial site to you?

17           A     Where the plant is, yes.

18           Q     Okay. That's all I needed, thank you.  
19                   Are there ways of altering the  
20      appearance, the boxy appearance of dry cooling so  
21      that, you know, it addresses your concern about it  
22      looking like a Home Depot?

23           A     I'm not quite sure about the  
24      architectural style of the dry cooling structure.

25           Q     Well, besides the architecture, are

1       there other mitigations that can be used to  
2       address your concern by looking like sort of a box  
3       store?

4           A     Again, I'm not an expert in dry cooling,  
5       I'm not an expert on what sort of requirements are  
6       needed as far as a structure. What I do know is  
7       that I read in the information as far as the mass  
8       and the size and the shape, and it seems that a  
9       certain volume needs to be developed for dry  
10      cooling to be implemented. And I think it's that  
11      size, it's that volume that seems to be a  
12      potential threat visually.

13           Q     Okay, thank you, Dr. Clay.

14                   MR. NAFICY: I want to turn to  
15      Mr. Schultz.

16      BY MR. NAFICY:

17           Q     The City's concerns about dry cooling or  
18      other alternative coolings are well known. I  
19      wanted to know, when did the City first commission  
20      experts to study or analyze the potential noise  
21      and visual impact of dry cooling?

22           A     After the final FSA was issued.

23           Q     So at the time -- How long has the City  
24      been officially expressing its opposition to dry  
25      cooling?

1           A     Since August of last year.

2           Q     So during that time, between August of  
3     last year and when finally experts were hired, on  
4     what basis was the City concerned about these  
5     impacts? I mean, what was the basis for their  
6     concern?

7           A     I'm not sure of your question. It was  
8     proposed either through workshops or through  
9     different channels that the proposed alternative  
10    coolings could come about, so there was workshops  
11    and presentations made. And then findings were  
12    reached by the different commissions or council,  
13    after public comment and after evaluating either  
14    from presentations.

15          Q     But when the notion of dry cooling first  
16    came up, the City didn't immediately hire experts  
17    to find out whether any potential impacts may or  
18    may not be mitigated.

19          A     Depends what your definition of experts  
20    are, but outside experts were not hired until  
21    after the final FSA. Staff did their own  
22    analysis.

23          Q     So City of Morro Bay has experts on  
24    staff that did the analysis and provided the  
25    information to the City?

1           A     As it relates to our LORS, yes.

2           Q     And what do you mean, as it relates to  
3     our LORS?

4           A     As it relates to our ordinances, rules  
5     and regulations, and how the structures would be  
6     able to conform with those LORS.

7           Q     Can you identify who the City's experts  
8     are?

9           A     At the present time, it would have been  
10    myself in the public service department, and Greg  
11    Fuz when he was still with the City.

12          Q     I wanted to talk to you a little bit,  
13    ask you some questions about the local coastal  
14    plan and what the primary objectives are of the  
15    local coastal plan.

16               First of all, is it correct that the  
17    local coastal plan basically incorporates the  
18    objectives and policies of the Coastal Act as they  
19    pertain to City of Morro Bay?

20          A     Yes, it does.

21          Q     Okay, and isn't conservation of coastal  
22    resources the primary objective of the policy of  
23    the Coastal Act?

24          A     It's one of the objectives. I don't  
25    know if I would consider it the primary objective.

1 I'm not sure if it states anywhere in there it's  
2 the primary objective.

3 Q But it's an important objective?

4 A Yes.

5 Q Now, isn't it, in fact, true that also,  
6 when the LCP was first adopted, the plant already  
7 existed on its coast?

8 A That's correct. Our local coastal plan  
9 was certified in '82.

10 Q So when in '82 the City certified its  
11 local coastal plan, and basically grandfathered  
12 the plant, it didn't really study its  
13 environmental impacts of having a plant there, did  
14 it?

15 A I wouldn't know the answer to that.

16 Q Well, if it was grandfathered, would you  
17 normally do an environment -- you know, a CEQA  
18 review of something you're grandfathering into  
19 your plan, normally?

20 A I'm not sure what CEQA even --

21 MR. ELIE: I'm having trouble  
22 understanding the relevance of this. Objection;  
23 relevance.

24 MR. NAFICY: The relevance is that the  
25 City is using the LCP, which is supposed to

1 protect coastal resources, to, in fact, accomplish  
2 the opposite, which is to allow the plant to go on  
3 having the most severe adverse impact on the  
4 estuary, and that seems to me a perversion of the  
5 Coastal Act.

6 MR. ELIE: Well, that is --

7 HEARING OFFICER FAY: Is that a  
8 question?

9 MR. NAFICY: It's an explanation.

10 MR. ELIE: I'm waiting to read that in  
11 Mr. Naficy's brief. I think this is way beyond  
12 the scope of direct.

13 MR. NAFICY: Well, you asked the  
14 relevance, and I was trying to explain how --

15 MR. ELIE: Okay. Well, he's given the  
16 explanation now. I think it's way beyond the  
17 scope of direct or what is relevant to these  
18 proceedings as to what happened in 1982 when we  
19 were all not here, and I don't even know if CEQA  
20 existed; certainly not in the scope it is today.

21 HEARING OFFICER FAY: Well, Mr. Naficy,  
22 I think it is relevant in terms of the City's  
23 addressing the current proposal. And if you can  
24 phrase your question in that way, I'll allow it.

25 MR. NAFICY: I think it's relevant the



1 way I asked it, because the City has never looked  
2 at or really incorporated -- Never mind, I'm going  
3 to move on. I don't think -- I mean, the question  
4 was asked, and I think I have an answer.

5 BY MR. NAFICY:

6 Q I believe there was testimony that City  
7 of Morro Bay's opposition to dry cooling is  
8 primarily based on this perceived visual, noise  
9 and other related impacts. Does the City have  
10 any -- Is that correct, first of all, is that an  
11 accurate statement?

12 A I would say the primary concerns from  
13 the City are from a visual standpoint, a noise  
14 standpoint, a land use standpoint, and a cultural  
15 resources standpoint.

16 Q Does the City have any policies or  
17 objectives relative to protection of estuary  
18 resources?

19 A Unfortunately, there are very few.

20 Q So the decision or --

21 A And, I guess I'm qualifying, that's  
22 probably the primary reason why the City Council  
23 from the start did not get involved in air quality  
24 issues or the biological resource issues, and left  
25 that up to the Air Quality Control Board and up to

1 the Regional Water Quality Control Board.

2 Q So has this -- Given that the City's  
3 apparently guiding documents don't have resource  
4 protection, estuary and marine resource protection  
5 policies and objectives, would it be fair, then,  
6 to assume that the decision to oppose dry cooling  
7 did not come about as a process of balancing these  
8 objectives about visual and noise against  
9 protection of resources?

10 A Again, I'll qualify it by trying to  
11 explain to you why there is that imbalance, and  
12 that is because, as the City of Morro Bay, we're  
13 required just to look at our LORS to determine  
14 whether there was a consistency. We can't go  
15 outside and invent our own laws or regulations.

16 So, from the standpoint of yes, we only  
17 looked at land use, noise and visual, because we  
18 do have those policies. And to the extent that we  
19 didn't have policies dealing with the estuary or  
20 water issues, we were just unable because we don't  
21 have those -- We are currently undergoing an  
22 amendment of our general plan and local coastal  
23 plan, and hopefully that might change and we might  
24 have other policies.

25 Q But you do understand and I expect you

1 agree, though, that the CEC is obligated to  
2 consider the marine impact and in some ways look  
3 at the entire set of impacts and not just the ones  
4 that are contained, you know, the visual and noise  
5 protection policies that are contained within the  
6 City's guiding documents.

7 A I completely agree with the fact that  
8 the CEC and the Regional Water Quality Control  
9 Board will both be looking at those issues.

10 MR. NAFICY: Nothing further.

11 HEARING OFFICER FAY: Okay, thank you.

12 MR. ELIE: Two brief redirect for  
13 Dr. Clay.

14 HEARING OFFICER FAY: Go ahead.

15 REDIRECT EXAMINATION

16 BY MR. ELIE:

17 Q Dr. Clay, you've looked at the staff FSA  
18 and Duke's testimony and Mr. Powers' testimony on  
19 the ACC issues, correct?

20 A Yes.

21 Q Have any of the structures you've seen  
22 been anything but a box?

23 A I haven't seen any.

24 Q Well, you saw the KOPs, you saw --

25 A Correct.

1           Q     -- for example, like the picture that's  
2     on the screen now.

3           A     Right.

4           Q     Have you seen anything that wasn't a  
5     box?

6           A     To date I haven't.

7           Q     Okay. And one more question. Your  
8     concerns regarding the ACC, is it correct that  
9     those are not confined to tourists but they are to  
10    anyone looking at the structures?

11          A     Yes, they are.

12               MR. ELIE: No further questions.

13               HEARING OFFICER FAY: Okay.

14               MR. NAFICY: Can I just ask --

15               HEARING OFFICER FAY: One cross.

16               MR. NAFICY: One, just one.

17                       RECROSS-EXAMINATION

18    BY MR. NAFICY:

19           Q     Were you asked to analyze the visual  
20    impacts of the proposed plant without ACC?

21           A     I was asked to review the information,  
22    and then to provide some sort of a statement on  
23    what I thought was the credibility of the  
24    information, and then what the potential or  
25    probability of the impacts might be on the City

1 and the region.

2 Q I'm sorry, does that mean that you  
3 analyzed the potential impact of the plant?

4 A Yes, I did.

5 Q And what was your conclusion about those  
6 visual impacts without the ACC?

7 A In comparison to the existing plant?

8 Q Yes.

9 A If you look at the proposed plant with  
10 the ACCs in relation to the existing plant --

11 MR. ELIE: No, no, what I think he's  
12 asking --

13 DR. CLAY: Is that what he's asking?

14 MR. NAFICY: No, without --

15 MR. ELIE: No, without the ACCs, and in  
16 comparison to the existing plant.

17 Duke's proposed plant, contrasted with  
18 what's there now.

19 DR. CLAY: I think it's smaller and  
20 there is less of an impact, but it's closer to the  
21 Rock.

22 BY MR. NAFICY:

23 Q And what, if any, significance do you  
24 think there is attached to that?

25 A Again, you have the problem where, in

1 fact, some of the industrial material is moving a  
2 little bit closer to the Rock. But I do think  
3 that what we're seeing right there is better than  
4 what it is with the ACC.

5 Q Right, I understand --

6 A Because it's smaller.

7 Q I understand that.

8 A Less of an impact.

9 MR. NAFICY: Thank you. Nothing  
10 further.

11 HEARING OFFICER FAY: Okay. Thank you.

12 That concludes our taking on testimony  
13 on the alternative cooling from all the parties,  
14 and I understand -- before we get to public  
15 comment I understand the City has a letter, do  
16 you?

17 MR. ELIE: Well, I guess it comes under  
18 public comment.

19 HEARING OFFICER FAY: Yes.

20 MR. ELIE: It's a letter from the  
21 assemblyman.

22 HEARING OFFICER FAY: Why don't you go  
23 ahead with that first and then we'll start calling  
24 people up.

25 MR. ELIE: It's on the letterhead of the

1 Assembly, California Legislature, Abel Maldonado,  
2 Assembly Member, 33rd District, dated June 3,  
3 2002, addressed to the CEC, "Dear Commissioners,"  
4 and it is signed by Assemblyman Maldonado and  
5 Senator O'Connell.

6 "We are writing to express our support  
7 for Duke Energy's power plant modernization  
8 habitat enhancement project, and our opposition to  
9 the use of dry cooling for the Morro Bay power  
10 plant. We believe that the use of dry cooling and  
11 alternative cooling methods are not feasible.  
12 They would cause or exacerbate adverse effects on  
13 visual, noise, air quality, socioeconomics, and  
14 other local resources.

15 "According to the City of Morro Bay, dry  
16 cooling and the proposed alternative cooling  
17 options may be in direct violation of the City's  
18 municipal code, general plan, the coastal land use  
19 plan, and the Coastal Act.

20 "We urge you to give every possible  
21 consideration to supporting the habitat  
22 enhancement project for the Morro Bay power plant.  
23 If we can provide any additional information to  
24 assist you with your decision, please let us know.  
25 Sincerely, Abel Maldonado, Assemblyman, 33rd

1 District; Jack O'Connell, Senator, 18th District."

2 And we'll docket this, along with the  
3 other documents we're docketing.

4 HEARING OFFICER FAY: All right. Thank  
5 you for that.

6 MR. ELLISON: Mr. Fay, can I just take  
7 care of a couple of housekeeping things before we  
8 go to public comment?

9 HEARING OFFICER FAY: Okay.

10 MR. ELLISON: One is, I think we  
11 probably ought to identify that letter.

12 MR. ELIE: Do we give it an exhibit  
13 number?

14 MR. ELLISON: Well, I don't know, I'm  
15 not -- but the main concern is I think there is  
16 some ambiguity in the record as to whether various  
17 parties' testimony was, in fact, admitted into  
18 evidence or not today. So I think it would  
19 behoove us all to clarify what was and what was  
20 not -- and I think it was all intended to be  
21 admitted, but I'm not sure that it all actually  
22 was.

23 And if I'm mistaken, I apologize, but --

24 HEARING OFFICER FAY: Okay. You're not  
25 sure if the City had moved their --



1           MR. ELIE: I think. I mean, I'm  
2 informed and I think it's maybe correct that there  
3 were exhibits that were identified and moved, but  
4 I'm not sure that they were admitted.

5           MR. ELLISON: The court reporter advises  
6 me that 238 through 242 were already admitted.

7           HEARING OFFICER FAY: And received, yes.

8           MR. ELLISON: Which, those are the  
9 City's exhibits.

10          MR. ELIE: Okay.

11          HEARING OFFICER FAY: Those were the  
12 City's; were there others, you think?

13          MR. ELLISON: How about CAPE's?

14          MR. NAFICY: Yeah, we have -- I think I  
15 have 233 through 237, and we did ask, I think, for  
16 them to be admitted.

17          HEARING OFFICER FAY: Okay. If there's  
18 any doubt, they have been received.

19          MR. ELLISON: Okay. With the  
20 understanding that the testimony that you signed  
21 is received, not as expert testimony but as  
22 argument of counsel.

23          HEARING OFFICER FAY: And the Committee  
24 accepts it as such.

25          MR. ELLISON: And I apologize, but I

1 just wanted to make sure.

2 HEARING OFFICER FAY: That's all right.

3 I'm not sure the letter needs to be  
4 identified as an exhibit, if you'll just be sure  
5 that it gets docketed, we'd appreciate that.

6 MR. ELLISON: I will.

7 HEARING OFFICER FAY: Okay. Anything  
8 further?

9 MR. ELLISON: Well, I guess one other  
10 thing I would say, but I definitely think we ought  
11 to take public comment first. But if we do have  
12 any time left over we have associated with our  
13 marine biology testimony tomorrow a long list of  
14 incorporated exhibits, and we might be able to get  
15 a leg up on tomorrow if, again, if we have time  
16 today, to kind of go through and mark them and all  
17 of that.

18 HEARING OFFICER FAY: Okay. I also  
19 need, I'll just put everybody on notice, we have  
20 about two-thirds more requested time tomorrow than  
21 there are hours for tomorrow's hearing. And I  
22 would like to -- even though we can go late  
23 tomorrow, I would like to talk to the parties  
24 after we adjourn and see if we can't revise all of  
25 our estimates down just a bit, and yet still give

1 the time and attention that this important subject  
2 deserves. So we'll do that afterwards.

3 Okay. Anything further before we go  
4 into public comment?

5 We have a dozen blue cards, people that  
6 want to comment. So we'd ask that you keep it as  
7 brief as you can, and yet still give us your  
8 thoughts. But we will have to limit you to no  
9 more than five minutes.

10 MR. CHIA: Mr. Fay?

11 HEARING OFFICER FAY: Yes.

12 MR. CHIA: This is Dan Chia of the  
13 Coastal Commission.

14 HEARING OFFICER FAY: Hi, Dan. Have you  
15 been with us all day?

16 MR. CHIA: Yes, I have.

17 HEARING OFFICER FAY: Good.

18 MR. CHIA: Probably unbeknownst to you,  
19 but yes, I've been here. I just have a couple of  
20 comments as well.

21 HEARING OFFICER FAY: Okay. Let's hear  
22 yours first.

23 MR. CHIA: Okay, thank you. A couple  
24 quick things. First, I think this was in the  
25 response to Duke's questioning of the City. I

1       can't quite recall, but it was a discussion  
2       regarding if the project was not subject to the  
3       CEC's jurisdiction, would the City require a CDP,  
4       a coastal development permit, and/or a conditional  
5       use permit.

6               And I believe there was discussion  
7       whether or not there was any Coastal Commission  
8       jurisdiction associated with the project that  
9       would not be a part of the CEC process. And I  
10      just want to make clear that if the City did issue  
11      a coastal development permit for the project, that  
12      coastal development permit would be subject to the  
13      Coastal Commission's appeals jurisdiction. And I  
14      realize this is just a theoretical discussion  
15      here.

16             The second point, in response to the  
17      City's questioning I believe of Mr. Hamblin,  
18      whether or not the local coastal program contains  
19      the zoning ordinances of the City, I'd just like  
20      to quote section 30108.6 of the Coastal Act, it's  
21      the definition of a local coastal program. And  
22      that says, "Local coastal program means a local  
23      government's, (a) land use plans; (b) zoning  
24      ordinances; (c) zoning district maps; and (d)  
25      within sensitive coastal resources areas, other

1 implementing actions which, when taken together,  
2 meet the requirements of and implement the  
3 provisions and policies of this division at the  
4 local level." So obviously, the LCP does include  
5 the applicable zoning ordinances.

6 And my final comment, I just want to  
7 bring to everyone's attention, and I believe  
8 everyone was served, the letter from our executive  
9 director, Peter Douglas, dated May 29th to  
10 Commissioners Keese and Boyd.

11 In that letter -- And this letter has  
12 been docketed. "We support staff's recommendation  
13 that an alternative cooling system be required for  
14 the proposed project in recognition of the  
15 significant adverse impacts due to entrainment  
16 (phonetic) and other impacts due to impingement  
17 and the thermal discharge. And we rely on staff's  
18 finding of feasibility in their review of  
19 conceptual alternative cooling designs."

20 So that concludes my comments, thank  
21 you.

22 HEARING OFFICER FAY: Okay, thank you.

23 Two questions: Do you have an estimate  
24 on when the Coastal Commission will be sending us  
25 its report?

1           MR. CHIA: In that May 29th letter, we  
2 write that we hope to schedule the report for the  
3 Commission's August meeting, and I believe it's  
4 the first week in August.

5           HEARING OFFICER FAY: Okay.

6           MR. CHIA: Yes, it's August 6th through  
7 9th, actually, in San Luis Obispo.

8           HEARING OFFICER FAY: Okay. And in  
9 addition, this is just a housekeeping matter, I  
10 understand that tomorrow Deborah Johnson of the  
11 California Department of Fish and Game is going to  
12 try to coordinate with you a time when she can  
13 patch in and make comments while we're discussing  
14 aquatic biology tomorrow. So I hope she does  
15 contact you on that.

16          MR. CHIA: Okay. Thank you.

17          HEARING OFFICER FAY: Yes, there's just  
18 one connection here, so we can't do both. We  
19 don't have the ability for that.

20          MR. CHIA: I can certainly patch her in.

21          HEARING OFFICER FAY: Great, thank you.  
22 And thank you for your comments.

23          MR. CHIA: You're welcome.

24          HEARING OFFICER FAY: All right. Now to  
25 move to public comment, and again, I hope people

1 will keep in mind our request to be succinct.

2 We ask Dr. Richard Smith.

3 DR. SMITH: Yes. I had said that I  
4 wanted to address air quality. I was a bit  
5 confused, I think that's probably more appropriate  
6 at water quality with the aquatic things. But  
7 what I would like to address is the issue of  
8 citizen and City support for the proposed project  
9 and the opposition to dry cooling.

10 I've felt this strongly, it goes well  
11 beyond this proceeding. Repeatedly we've had the  
12 City and many others refer to an advisory vote  
13 that took place about a year and a half ago,  
14 advisory vote P. We got the Ps and the Qs got all  
15 mixed up, and so it was very hard for citizens to  
16 remember which one the City Council put forward,  
17 which was P, and which one CAPE put forward, which  
18 was Q.

19 So I'd like to give, as a citizen, my  
20 reactions to those votes, how I voted, and what I  
21 thought they meant. The claims that we've heard  
22 from the mayor at the Regional Water Quality  
23 Control Board and the many comments made about the  
24 City viewpoint and, by implication or directly,  
25 citizens' viewpoint today, then depending on a

1 positive vote for this advisory P that stated that  
2 the public would support the proposed plant or the  
3 plant as proposed today, if all local, state, and  
4 federal laws were supported -- if it conformed, I  
5 guess was the proper language, to all local,  
6 state, and federal laws.

7 Then the nature of that was set forth in  
8 that memorandum of understanding that I'm sure  
9 you've heard a great deal about. And in the  
10 development of that, there was a great deal of  
11 public input of concern about protection of the  
12 estuary, and air as well, I might add, but my  
13 comments here are concerned more with the estuary.

14 And, as Mr. Schultz pointed out, the  
15 City admitted that they'd had very little laws  
16 that pertained to those environmental issues nor  
17 expertise, and put in very specific language in  
18 the MOU saying, again, that the City would support  
19 the proposal, as proposed, the plant as proposed,  
20 if there were no significant biological impacts,  
21 no marine impacts. And I don't have that  
22 language, but it's very clear and very specific  
23 that the City will support this only if there are  
24 no direct marine impacts.

25 Now, as a citizen hearing this stated



1 over and over again, we're for the plan and the  
2 categorical denial of dry cooling I guess is a  
3 slightly different issue, I've been deeply  
4 concerned, because I've watched now California  
5 Fish and Game, US Fish and Wildlife Service,  
6 National Marine Fishery Service, National Estuary  
7 Program, California Energy Commission, the CEC,  
8 and even the Regional Water Quality Control Board  
9 stating that there are clear biological impacts to  
10 this plant, significant ones, severe ones. And,  
11 with the exception of the Water Board's staff, all  
12 of them have said we've got to go to dry cooling.

13 So, in my mind, the City is not within  
14 the position taken by the population with either  
15 the advisory vote or the MOU. Clearly said we'll  
16 do this only if these impacts fail to occur.

17 The categorical denial of dry cooling  
18 also bothered me a great deal. It's been  
19 testified here there were numerous workshops about  
20 that for the public. I've been extremely active  
21 in this for three years. I was astounded that the  
22 City Council categorically denied dry cooling,  
23 support for it I believe it was two days before a  
24 long-scheduled major CEC workshop on dry cooling,  
25 when all the experts were going to be present and

1 we were going to try to work this out. And the  
2 City, in my mind, as a political maneuver, made  
3 their position where if they delayed that for two  
4 days, at least we would have had the advantage of  
5 some expert input.

6 So I think, given all those factors,  
7 and, by the way, the factors that the advisory  
8 vote of P occurred was supported, campaign  
9 contributions by Duke Energy, and occurred within  
10 a climate of a lot of propaganda, both the  
11 newspapers and all over the place, workshops by  
12 Duke and so on, about how good this was going to  
13 be -- smaller, better, cooler, this, that and the  
14 other -- and then a void of any evidence about the  
15 damaging responses, this is being  
16 mischaracterized, that the City -- that the people  
17 of the community do not necessarily support this  
18 at all. Thank you.

19 HEARING OFFICER FAY: Thank you.

20 MS. GROOT: Mr. Fay, if I could make a  
21 correction for the record, please?

22 HEARING OFFICER FAY: If you could hold  
23 it, we want to get to the comments of the public.

24 MS. GROOT: Okay.

25 HEARING OFFICER FAY: Leslie Neely-

1 Smith. And if I hold up a blue card, that means  
2 you're within 30 seconds of the five minutes, and  
3 we really have to keep it to no more than that;  
4 otherwise, everybody won't have a chance to speak.

5 MS. NEELY-SMITH: My name is Leslie  
6 Neely-Smith, no relation to the previous Smith.  
7 Very rare name, I'm sure. I'm a resident of Morro  
8 Bay, and I'm speaking for myself, and I also have  
9 the blessing of several of my friends and family  
10 members to sort of represent them. They couldn't  
11 be here because they had to work today.

12 In my opinion, as a citizen,  
13 hydrocooling is a poor option if the power plant  
14 is to be expanded in its current location. As  
15 we've heard, several, multiple government agencies  
16 demonstrated the negative results of the continued  
17 use of water cooling. The final staff assessment  
18 of the CEC indicates that continuing to use ocean  
19 water would cause the degradation of the estuary.

20 The CEC has predicted that the Regional  
21 Quality Board will require dry cooling due to the  
22 requirements of the Clean Water Act, and the  
23 National Marine Fishery Service will not recommend  
24 a project that will damage habitat. The current  
25 use of water to cool the generator kills up to

1 one-third of the estuary's fish, fish larvae, and  
2 fish eggs, the creatures which form the bottom of  
3 the food chain and so impact the entire ecosystem.

4 Hydrocooling was chosen with no thought  
5 as to the impact on the estuary. The current  
6 plant was built during the 1950s when the  
7 environment was considered an endless supply of  
8 raw materials just for human use, scientific  
9 progress was the answer to everything, and  
10 radiation was good for you. This was a time when  
11 they used X-rays to check the fit of children's  
12 shoes.

13 Modern science shows us another method  
14 is available which will not impact the estuary:  
15 dry cooling. Dry cooling is a proven technology  
16 which is already in use. This dry cooling will  
17 cause less noise than we currently have, and I can  
18 hear it from my noise, and all of the buildings --  
19 past, present, current, proposed -- are all ten  
20 shades of ugly, so the visual impact is less  
21 important to me than the estuary. The estuary is  
22 an irreplaceable natural feature and habitat and  
23 it should therefore be protected.

24 Also, I might want to remind us all that  
25 Duke Energy does not own the ocean, it's a public

1 resource. Public resources should not be used to  
2 their own detriment for the benefit of a private  
3 corporation.

4 As a citizen, I will also note my  
5 experiences. My husband is a surfer, which I  
6 think may qualify him as a form of marine life,  
7 and he and I have, we take my little nephew across  
8 the Bay on a surfboard, where we can actually see  
9 the life that's in the water. We want him and all  
10 the children to be able to see that.

11 As a registered nurse, I have a legal  
12 responsibility and a moral duty to advocate for  
13 the health of my patients, and I feel I also have  
14 a role as an advocate for the health and welfare  
15 of my community and the environment that I live  
16 in. Under any circumstances, this power plant is  
17 detrimental to them both.

18 I might also point out, if Duke feels  
19 that these requirements that we're discussing  
20 today are too unreasonable, that Morro Bay is  
21 based on fishing and tourism, and the power plant  
22 is not truly compatible with either industry and  
23 currently has a negative impact on them both. The  
24 current power plant is often mistaken by tourists  
25 for Diablo nuclear power plant, so that's an

1 experience I've had.

2 If Duke cannot abide by the scientific  
3 findings and the LORS of Morro Bay, I would  
4 strongly urge them to consider another location  
5 for their power plant. Having a power plant here  
6 is basically inappropriate. If we have to have  
7 one, I feel quite strongly that the Commission  
8 should consider its total impact on the estuary,  
9 which is central to Morro Bay and to the  
10 California environment. Thank you.

11 HEARING OFFICER FAY: Thank you.

12 Laura Hunter.

13 MS. HUNTER: Good afternoon. My name is  
14 Laura Hunter and I traveled up here from San  
15 Diego. I'm director of the Clean Bay Campaign for  
16 an organization called the Environmental Health  
17 Coalition, but I'm also today speaking on behalf  
18 of what's a network of environmental organizations  
19 in San Diego called the San Diego Bay Council.

20 We have joined forces together. This  
21 includes all of the major environmental groups  
22 that focus on water quality in San Diego Bay, and  
23 we're focusing on our problems with the South Bay  
24 power plant as well. This includes the San Diego  
25 chapter of Surf Riders, the San Diego chapter of

1 the Sierra Club, the Audobon Society, and a  
2 variety of other organizations.

3 This is a very, very significant debate  
4 for us. I know you're talking about a site-  
5 specific problem and a site-specific issue, but  
6 what you decide is going to shake the ground  
7 throughout the state. This decision that you are  
8 making is going to have a very far-reaching  
9 impact, and I really want to underscore that and  
10 hope you appreciate just the weight of what you  
11 are going to do today.

12 We have a situation in San Diego that is  
13 more severe. Our estuary is more degraded, the  
14 impacts are greater, and I'm sure that there is  
15 going to be a project in front of you, and I'm  
16 getting quite an education today on what this  
17 process is like.

18 I wanted to point out that we did attend  
19 the two-day seminar on dry cooling that was held  
20 in San Diego just last week, and I think it would  
21 be -- I notice that there were some of your staff  
22 there, and I think it would be very important for  
23 you to get briefed by them, in terms of what they  
24 heard, but this is what I heard presented over and  
25 over and over. We had speakers from Massachusetts

1 and New York, kind of water-rich states; Mexico,  
2 the country; South Africa, the country. So we had  
3 all kinds of people talking about dry cooling and  
4 what's happening around the world with this  
5 technology.

6 And here are the trends: Dry cooling is  
7 growing in popularity. They're using it, and here  
8 are the major reasons they are using it. Number  
9 one is we're not the only place that's running out  
10 of water, and through the respect of the water,  
11 the scarcity of water in many places, and the  
12 impacts on the environment is the number one  
13 reason that dry cooling is being used in places  
14 like power plants right next to the Hudson River.  
15 The river is right there, they went with dry  
16 cooling for 1,000-megawatt plant because of the  
17 impacts on the fishery.

18 I know that fish don't vote, I know that  
19 they can't get together and pass resolutions, but  
20 they're still constituents and they still matter.  
21 If any of you went to the Marine Protected Area  
22 hearings, you can see that we're starting to  
23 recognize we're decimating the ocean, and now  
24 we're telling recreational fisherman, no, you  
25 can't fish in there, because we've got to leave



1       that area alone around the Channel Islands for  
2       that fishery to recover.

3               How dare we, as a society, make a  
4       decision where the sport fishermen can't go out  
5       and catch fish, but we'll unnecessary allow a  
6       power company to destroy a third of your fish  
7       every year unnecessarily and unneedfully. It's a  
8       very, very serious implication, and everyone  
9       around the country is dealing with it and they're  
10      answering it with dry cooling.

11             Another reason to go to dry cooling is  
12      it's a quicker, faster, less painful permitting  
13      process. They think they're cutting two years in  
14      some cases off of their permitting processes, so  
15      they're getting up and running quicker, they're  
16      getting those profits quicker, they're moving  
17      through the system a lot quicker by not proposing  
18      something that destroys the environment.

19             Future assurances: You can't count on  
20      reclaimed water. We don't know -- We know that  
21      our water situation is going to get worse in the  
22      future. We shouldn't let them rely on reclaimed  
23      water. We know the environment is going to get  
24      more degraded if we don't start changing our  
25      behavior. Dry cooling has been proven to be very

1 reliable, and that's another reason they're going  
2 to it.

3 I was very struck by this discussion  
4 today of feasibility, and I would really urge you  
5 to separate the technical factors from the  
6 political factors. And I think, Commissioner  
7 Boyd, you kind of had your finger on that. The  
8 laws of nature are non-negotiable. I mean, we  
9 can't go and say please, fish, don't die when you  
10 go through that power plant. But political  
11 positions and posturing, those change over time,  
12 we know that.

13 So we would ask you to de-weight the  
14 political factors in your decision because those  
15 are changeable, those are a function of who got  
16 elected last election, and those are a function of  
17 what a city or an entity would view their  
18 possibilities as of now. That's very important.

19 We would ask you to apply what we are  
20 going to call the try-hard standard. And Bill  
21 called it the directed engineering talent, but  
22 we're going to call it the try-hard. There's a  
23 number of alternatives that were presented, and  
24 they're plants that are operating, in the dry  
25 cooling seminar.

1 I realize I'm out of time, but maybe I  
2 can submit those under -- in the terms of a  
3 letter.

4 HEARING OFFICER FAY: Fine. In fact,  
5 any of you that have very detailed comments, I  
6 encourage you to write to the Commission's docket,  
7 and they will be included in the docket of this  
8 case.

9 MS. HUNTER: Okay. Then I'll skip all  
10 that. I'd just make one closing statement. The  
11 other thing that was sad in our seminar is that  
12 really, the California's -- they're calling it  
13 nationwide the bellwether state. I mean, the way  
14 we decide to go with these power plants that are  
15 being redone, the rest of the country may follow  
16 us.

17 You have a choice between the past bad  
18 decisions that we made, based on other conditions  
19 of a long time ago, and the future. Please make  
20 this a project of the future. Force the not even  
21 new technology, the appropriate technology to be  
22 used in this case. And if there are concerns over  
23 visual, then move it off the coast altogether. It  
24 looks like you have other places to put this  
25 plant.

1 HEARING OFFICER FAY: Okay, thank you.

2 MS. HUNTER: Thank you very much.

3 COMMISSIONER KEESE: I would just  
4 observe that the first power plant sited in the  
5 last ten years in California was right next to the  
6 Sacramento River and was dry cooling, and that was  
7 right in that plant. Since then, about half the  
8 plants we've sited have been dry cooling. And  
9 some of them have been right and some of them  
10 haven't.

11 That's why we're here and hearing all  
12 the evidence, because we have to decide whether  
13 that's right.

14 HEARING OFFICER FAY: Okay. Colleen and  
15 Eric Johnson. Which one of you will be addressing  
16 us?

17 MS. JOHNSON: Two years ago, when the  
18 idea of replacing the old power plant was being  
19 discussed, a memorandum of understanding between  
20 the City of Morro Bay and Duke Energy was drafted.  
21 This document was drawn up to provide a framework  
22 for goal achievement.

23 On the first page under Goals of the  
24 memorandum of understanding, the fourth goal  
25 reads, "To demolish the existing plant and replace

1 with a state-of-the-art facility." It further  
2 states that Duke assures us that they will use,  
3 quote, "state-of-the-art technology," end quote.

4 Fifty years ago when the original plant  
5 was built, all scientific and technological data  
6 available at the time was used to build the most  
7 modern, up-to-date plant that could humanly be  
8 built. Now, in the year 2002, we are faced with  
9 decisions of building another power plant. Will  
10 we build another power plant inside an  
11 ecologically fragile environment, using estuary  
12 water to cool the plant, a technology developed  
13 more than half a century ago? Or will we try to  
14 maintain the ecology of the estuary, and prevent  
15 enormous aquatic mortality by building the plant  
16 at an alternative site or by using the best  
17 available technology of dry cooling methods?

18 In the MOU with the City, Duke assured  
19 us that state-of-the-art technology would be used;  
20 therefore, the answer should be clear. On page  
21 six of the memorandum of understanding, it is also  
22 stated that, quote, "The City shall retain the  
23 rights to urge full consideration by the CEC of  
24 any new information regarding impacts that come to  
25 its attention subsequent to agreement on the

1 revised AFC by the City and Duke."

2 Numerous new studies have been completed  
3 over the past two years subsequent to the AFC,  
4 revealing much new information about impacts a new  
5 power plant would have on the estuary. This  
6 information cannot be ignored. There is now much  
7 more opposition from the citizens of Morro Bay  
8 regarding if or what type of power plant should be  
9 built, as more is learned about a new power plant.  
10 If a citizens advisory vote were taken today, the  
11 idea of a new power plant in the estuary would  
12 most certainly be voted down.

13 As a final thought, 50 years from now,  
14 when most of us in this room are long gone, what  
15 will be said about our decisions? Will our  
16 shortsightedness be remembered, or will our  
17 foresight into the future be remembered? At an  
18 early age, my father would tell us if you're going  
19 to do something, do it right. We live at a time  
20 where alternative sites and improved technologies  
21 are available to us. It would be unethical not to  
22 use them.

23 If we must build another power plant,  
24 please let's do it right.

25 HEARING OFFICER FAY: Thank you.

1           MASTER JOHNSON: And I just wanted to  
2 say, if I ever grow up to be a physicist or  
3 something and this hasn't been decided, then maybe  
4 I could make a new way. And, if not, I still hope  
5 that it isn't built on the estuary.

6           HEARING OFFICER FAY: Thank you, Eric.  
7 We hope that we'll finalize this decision before  
8 you become a physicist.

9           COMMISSIONER BOYD: Don't give up on us  
10 yet.

11           (Laughter.)

12           HEARING OFFICER FAY: Nelson Sullivan.

13           MR. SULLIVAN: Nelson Sullivan, Morro  
14 Bay resident, 20-odd years. I've heard a number  
15 of times during the course of these delightful  
16 meetings people saying what the people -- people  
17 testifying what the people of Morro Bay think.  
18 They say they don't want dry cooling. I heard  
19 that a number of times and I heard that this  
20 morning.

21           And I don't know where they get that  
22 idea. They must have a crystal ball. We haven't  
23 had a poll, you know, a bona fide poll. We  
24 haven't had an election for two years ago next  
25 November. So I don't think they speak with much

1       credibility when they're saying what the people of  
2       Morro Bay think. I think the previous speaker is  
3       more in line with what they're thinking.

4               As far as the City Council is concerned,  
5       that's five people. Three of them will be  
6       changed, I mean, three seats are up for election  
7       this November, so that could change entirely also.  
8       But the present council is primarily interested in  
9       the two million dollars it's dangling in front of  
10      their nose, and they didn't oppose dry cooling  
11      until Duke come out and said they wouldn't build  
12      the plant if they had to do the dry cooling. That  
13      seems to be the main motivation.

14             But as far as crystal balls are  
15      concerned, I've got one too. And I looked in it  
16      and I saw a big liquid natural-gas ship out in  
17      Estero Bay, unloading natural gas to the plant for  
18      about half the price of what they have to pay now,  
19      and that two million dollars that Duke would have  
20      to pay in gas franchise fees when they buy it as  
21      it crosses the -- when they take possession of it  
22      in the City, they -- Duke will pay attention to  
23      their stockholders and they'll just walk away from  
24      the promises that they made.

25             Their previous project director, Mark



1       Sito, he educated the people of Morro Bay, but I  
2       don't know if we learned much from it. But he  
3       said, don't ever think about taking Duke to court,  
4       because you won't win. Thank you.

5               HEARING OFFICER FAY: Thank you.

6               MR. SULLIVAN: Oh, one other thing. If  
7       any more particles come down on the City, any of  
8       these pm, particulate matter, the lethal  
9       particulate matter that they're finding out more  
10      and more all the time how lethal they are, if any  
11      more of them fall down on the people of the City  
12      because of those short stacks, it's going to be a  
13      violation of the CEQA law. Those stacks shouldn't  
14      be an inch shorter than 450 feet is the way I see  
15      it. Thank you.

16              HEARING OFFICER FAY: Thank you, sir.

17              Mandy Davis. And again, I'll remind  
18      people, I'll hold a card up when you have 30  
19      seconds left, and you'll have to wrap it up.

20              MS. DAVIS: I'm here. I'll try and make  
21      it as quick as possible. I have a list, but I  
22      tell you what, the comments that this young woman  
23      and her son made, it makes my list look pretty  
24      mundane by comparison. It brought to mind the  
25      fact that you guys know that I am against the

1       proposed plant and that I would support dry  
2       cooling if there had to be a plant here.

3               But what's really, really important and  
4       what you guys are really making a decision on here  
5       is not just us. As my teachers have constantly  
6       pointed out to me in the last three years, we are  
7       the gatekeepers. And it is our responsibility to  
8       make sure that the generations ahead of us have a  
9       wonderful world to look forward to.

10              And seeing this young man, Eric, up  
11       here, it just thrills me to no end to see kids  
12       come to these things and realize what potential  
13       they have as human beings. And that every single  
14       one of us can make a difference. And I hope that  
15       we as individuals, even though we are not part of  
16       the legal process, that you still hear us and take  
17       us into consideration when you are making your  
18       decisions.

19              Now I'm going to get down to the mundane  
20       things that I wanted to bring up, at least a  
21       couple of them. In reference to the letter that  
22       Maldonado and O'Connell have sent, I would like  
23       to -- you know, there is a limited amount of  
24       credibility that goes along with that, considering  
25       the fact that they both have received campaign

1 donations from Duke, so I would like you to  
2 consider that.

3 When it comes to other letters that have  
4 come in, there are over 100 letters that you're  
5 not aware of that I will make sure are sent to you  
6 and that you are made aware of, and that is 100  
7 letters from citizens that on Earth Day took the  
8 time to write letters to the governor that were in  
9 support of dry cooling and that were most  
10 assuredly against the continued degradation of the  
11 Duke power plant by once-through cooling. So I'd  
12 like to send those to you so you know that there  
13 are a lot of people out there that really are in  
14 support of the estuary.

15 And I would also like to restate a  
16 couple of things that Dr. Richard Smith said.  
17 Duke, and most specifically, Mr. Trump has  
18 continuously referred to the fact that the City is  
19 against dry cooling and supports their current  
20 project. Well, let me be really specific on that.

21 Why don't we call it four City Council  
22 members and the Planning Commission, and dry  
23 cooling has not gone out for a vote with the  
24 general population. And I would like to let you  
25 know what kind of due diligence they did. When

1       they made those -- they had those, quote, unquote,  
2       votes, they had not gone to the workshop that was  
3       specifically on dry cooling yet; as a matter of  
4       fact, not one single one of the City Council  
5       members went to that.

6               So what kind of expert information were  
7       they working under? Well, I'm sorry, but probably  
8       none. Or if they did have some, it probably would  
9       have been within the confines of the conversations  
10      with Duke. So I would submit to you that that  
11      really doesn't make them look very good, and they  
12      made their decisions on basically no facts at all.

13             So that's basically what I really wanted  
14      to let you guys know. Oh, the comment by  
15      Mr. Powers I thought was really pretty insightful,  
16      and it was kind of interesting that Duke's  
17      attorney had such a negative response to it. The  
18      way that I saw what he was saying, and, as a  
19      matter of fact, I even wrote it, was that -- it's  
20      kind of a, this whole proceeding has been a good  
21      example of expertise and brain power being used on  
22      one side to prove the existence of a problem to  
23      assert their own personal gain.

24             But that same kind of expertise and  
25      brain power, and I'm not saying you guys aren't

1 experts and there's a tremendous amount of brain  
2 power, but that same amount of expertise and brain  
3 power, on the other hand, has been used to  
4 identify solutions, not problems, in an attempt to  
5 save the environment. So you have experts on both  
6 sides trying to do something very different.

7 Thank you.

8 HEARING OFFICER FAY: Thank you,  
9 Ms. Davis.

10 Our next commenter is John Hammond.

11 MR. HAMMOND: My name is John Hammond,  
12 and thank you for this opportunity to address the  
13 Commission.

14 I've lived in San Luis Obispo for  
15 approximately 35 years, and presently I am the  
16 business manager of Local 409, which is the  
17 Plumbers and Pipefitters Union. We have  
18 approximately 1900 members in this consolidated  
19 union. And I was elected in 1994, and then I've  
20 gone through three elections since, and I'd just  
21 like to add that Duke hasn't contributed to my  
22 election.

23 Local 409 has a lot at stake here, for a  
24 number of reasons: environmentally, because we  
25 live here; economic because this is construction

1 work, this is our line of work. And at the  
2 present time, we're building eight of these power  
3 plants, cogeneration power plants, in our  
4 jurisdiction. Not one of them is using dry  
5 cooling, to my knowledge, and that includes two or  
6 three power plants in the desert where that is  
7 quite an issue as well.

8 We support the modernization of this  
9 power plant without dry cooling, and I'd like to  
10 read a statement, and I will try to be brief:

11 "We, the construction workers and their  
12 families of San Luis Obispo County, request you to  
13 allow Duke Energy to construct a new power plant  
14 in Morro Bay. Duke Energy's project is important  
15 to us in many ways. It will help locate displaced  
16 workers back into the Central Coast that have had  
17 to go elsewhere to seek employment, rejoining them  
18 with their families. The social and economic  
19 benefits of this project are very, very important  
20 to us.

21 "Furthermore, we request that you allow  
22 Duke Energy to use the once-through seawater for  
23 the purpose of cooling the power plant. The  
24 mitigation funds that will be provided by Duke  
25 Energy will have a very positive effect on the

1 environment. Once again, we request the licensing  
2 of this plant modernization without dry cooling."

3 HEARING OFFICER FAY: Thank you.

4 COMMISSIONER KEESE: Thank you very  
5 much.

6 HEARING OFFICER FAY: William Peirce.

7 VICE MAYOR PEIRCE: Good evening. My  
8 name is William Peirce. I am here in my capacity  
9 as vice mayor of the City of Morro Bay.

10 The City Council has studied the dry  
11 cooling issue and has adopted two resolutions in  
12 opposition. One was our resolution 57-01, the  
13 other is 20-02. Our Planning Commission also  
14 adopted a resolution in opposition; that was  
15 resolution number 01-01.

16 While recognizing that once-through  
17 cooling may have impacts on the estuary, the City  
18 has found the following issues to be even more  
19 compelling. Dry or hybrid cooling structures will  
20 have negative visual impacts. Additional land  
21 will be disturbed to construct dry or hybrid  
22 cooling structures. Dry or hybrid cooling will  
23 have increased noise impacts. Hybrid wet-dry  
24 cooling requires a new water supply.

25 Hybrid wet-dry cooling will violate many

1 local laws, ordinances, regulations, and  
2 standards, including the City's general plan  
3 policy, coastal land use policies, and City zoning  
4 codes. Incidentally, speaking for myself, I have  
5 previously sent you a letter outlining my concerns  
6 regarding some of the methods that were used in  
7 some of the scientific studies on the Bay, and I  
8 will leave that for the letter. But thank you for  
9 your attention.

10 HEARING OFFICER FAY: Thank you very  
11 much, Mr. Peirce.

12 COMMISSIONER KEESE: Thank you. You're  
13 my kind of politician. That was the shortest  
14 speech we've had.

15 (Laughter.)

16 COMMISSIONER KEESE: Kept it under two  
17 minutes.

18 HEARING OFFICER FAY: See what nice  
19 compliments you get if you can be brief?

20 Pam Soderbeck.

21 MS. SODERBECK: Hi. I just have a  
22 couple of comments, in my capacity as a resident  
23 here, nothing to do with CAPE's positions.

24 But I've heard many times today about  
25 all the study that the City Council and the



1 Planning Commission had done before they adopted  
2 their position. That is a total joke, and I can  
3 pull out the tape of the Planning Commission  
4 meeting to show that to you.

5 If anyone is interested, the Planning  
6 Commission chairman had a conflict of interest  
7 because, gee whiz, his house is going to have a  
8 big huge ocean view if this project goes forward  
9 as Duke wants it to. He was afraid it wouldn't,  
10 because they said they weren't going to do it if  
11 they had to do dry cooling.

12 He went up and made a presentation -- I  
13 don't know how it worked under the appropriate  
14 political rules, but he made a presentation to  
15 them saying, you know, this is really awful stuff.  
16 The next meeting they had, another commissioner --  
17 he had stepped down for the meeting -- another  
18 commissioner came up and said gee, I pulled these  
19 couple of little pictures off the Internet. This  
20 looks really bad to me. And everybody nodded and  
21 said, oh, okay, yeah, I think you're right. That  
22 was the extent of the homework that they had done.

23 Once again, when it got to the City  
24 Council level at their next meeting, they had done  
25 nothing more. They just said, oh, Planning

1 Commission likes this, we'll go along with it.

2 They did nothing more. It's a total joke to say  
3 that the City has looked at this at all.

4 That was my only point in wanting to  
5 make any comment at all today. Thank you.

6 COMMISSIONER KEESE: Okay, thank you.

7 HEARING OFFICER FAY: Thank you very  
8 much.

9 Jim Wood.

10 MR. WOOD: Good evening. My name is Jim  
11 Wood. I'm a citizen of Morro Bay. I'm chairman  
12 of the Harbor Advisory Board here, but speaking as  
13 a citizen. And I hope nobody takes political pot  
14 shots at me.

15 I think we've gotten off track here.  
16 This started out with a new plant, a plant  
17 modification, and the idea of it was it was going  
18 to be smaller, cleaner, produce more energy.  
19 California is going to need that energy someday.  
20 The political environment right now might mean  
21 that it doesn't, you know, but in a couple of  
22 years, we all know this state is going to grow  
23 tremendously. We're piping water and we're piping  
24 power all over the state.

25 Anyhow, it started off real simple, and

1 the simple part we were going to get a new plant  
2 that was smaller -- We're talking about that part  
3 over there (indicating) -- and we're going to get  
4 that big plant torn down. Now, if that doesn't  
5 happen, and it won't if we put in these big boxes  
6 right here, that old plant is going to stay right  
7 where it is and it's going to continue to suck  
8 water out of that Bay. And I don't think you can  
9 stop that.

10 Maybe I'm wrong, but I believe that old  
11 plant is going to sit there for another 20, 30  
12 years, however long it takes, however long that  
13 power is needed, and you certainly know more than  
14 I do about power plants. I don't know too many of  
15 them that have been torn down, do you? So that's  
16 something to ask yourself: How many of those old  
17 plants have been removed?

18 And can you change the way this plant  
19 cools itself? Because this plant will surely be  
20 sitting there when I die, okay, if we don't go  
21 with the new modification. As far as the larvae,  
22 when that larvae passes that intake, it's going to  
23 the ocean. Man, it's on its way out the door.  
24 And anybody that's walked out along this harbor  
25 and watched that current knows that when that

1       larvae goes by, it's leaving. And it becomes fish  
2       food.

3               That's why those little animals out  
4       there produce so many offspring, because very few  
5       of them make it. And most of them end up being  
6       fish food or whale food or basking shark food or  
7       whatever kind of food you want to call it. When  
8       it's leaving here, it's leaving the estuary. It  
9       doesn't have the power to swim back uphill. And  
10      you can't convince me -- I'm a poorly educated  
11      guy, okay. I don't have one of them big degrees.  
12      But you can't convince me that a pipe that big  
13      eats up 33 percent of a harbor mouth that big  
14      (indicating). You can't convince me of that.

15             But when that tide is coming in, it's  
16      sucking water. And for every gallon it sucks,  
17      another gallon comes in. And when that tide is  
18      going out, every gallon it's sucking, another  
19      gallon is coming in. Water seeks its own level.  
20      I think I learned that someplace around the third  
21      grade.

22             And I got to say this. I've held off  
23      saying it for a couple of weeks. That May 24th  
24      CEC staff rebuttal was about the most biased  
25      report I've ever seen in my life, full of emotion,

1       like I am right now. If them people worked for  
2       me, they'd be down the road. Thank you.

3               HEARING OFFICER FAY: Thank you.

4               COMMISSIONER KEESE: Thank you.

5               HEARING OFFICER FAY: Bill Olson.

6               MR. OLSON: My name is Bill Olson. I'm  
7       a Morro Bay citizen. I'm here representing Gary  
8       Ryan. Gary Ryan couldn't be here today and he  
9       asked me to deliver this letter for you, to you,  
10      regarding docket number 00-AFC-12, "Dear  
11      Commissioners:

12              "Attached please find copies of numerous  
13      letters written to the Regional Water Quality  
14      Control Board. Many residents wrote letters in  
15      opposition to dry cooling and supporting the  
16      habitat enhancement program outlined by Duke. I  
17      delivered those letters personally to the RWQCB  
18      last week, and the community has asked that you  
19      additionally receive copies of those letters.

20              "Furthermore, I have been in charge of  
21      gathering signatures on a petition that is  
22      addressed to the RWQCB and the California Energy  
23      Commission. To date, we have 169 signatures from  
24      Morro Bay and the greater San Luis Obispo area,  
25      which I might add were gathered in only a week's

1 time. The petition states as follows:

2 "Regarding opposition to dry cooling at  
3 the Morro Bay power plant, we, the undersigned  
4 residents of the City of Morro Bay and the greater  
5 San Luis Obispo County area, strongly oppose dry  
6 cooling for the Morro Bay power plant. We oppose  
7 dry cooling for the following reasons:

8 "Adverse visual impacts for residents  
9 and tourists, added noise affecting residents and  
10 tourists, reduced waterfront land available for  
11 other uses, up to 18 months of additional  
12 construction time, and increased expense for the  
13 modernization project which may kill the project  
14 financially and result in a loss of important  
15 benefits for the community.

16 "The habitat enhancement opportunities  
17 outlined by Duke Energy and the Regional Water  
18 Quality Control Board offer preferable ways to  
19 protect the Bay and address the documented  
20 factors, like sedimentation that threaten its  
21 life. We prefer the new plant proposed by Duke to  
22 the old one.

23 "Once again, the community wanted to  
24 voice its strong opposition to dry cooling, so we  
25 put this petition together which is attached for

1       you. Please listen to our community. No dry  
2       cooling: It simply will not work here.

3               "Thank you for your time and  
4       consideration. Sincerely, Gary Ryan, for the  
5       hundreds of locals."

6               Who do I --

7               COMMISSIONER KEESE: Thank you.

8               HEARING OFFICER FAY: Okay. We're going  
9       to have to take a five-minute break out of respect  
10      for our videographers so that they can continue  
11      recording this for the community and keeping it on  
12      community television. So for that reason we're  
13      going to take a five-minute break and keep it just  
14      to that.

15              (Brief recess.)

16              HEARING OFFICER FAY: Okay. We're back  
17      on the record.

18              Mr. Nelson.

19              MR. NELSON: I'll try to make this  
20      brief, but my name is David Nelson and I live here  
21      in Morro Bay, and I've been listening to the  
22      comments that you've gotten and you've actually  
23      gotten a really good cross-section of Morro Bay.  
24      I mean, the people that have been up at this  
25      podium I believe have pretty much spoken from

1       their hearts.

2               But unfortunately, this isn't one of  
3       these issues that we can speak from our hearts,  
4       you know. We tend to do that, but the realization  
5       of this is that it's your job as CEC, the lead  
6       agency here, to weigh all this evidence and do the  
7       right thing. And it just seems that, you know,  
8       logically the right thing to me would be to shut  
9       this water off.

10              Now, what the solution after that is,  
11       you know, that's really up to you guys and Duke,  
12       whether they want to rebuild this plant or not.  
13       But the reality of the situation is, is that our  
14       city has the right to lease the tidelands leases  
15       through the state. And, you know, unfortunately  
16       you've heard our vice mayor up here sounding  
17       support for continuation of the status quo. And  
18       we've gone many, many, many, many years without  
19       any kind of research into our estuary.

20              Finally, because of a new application,  
21       we finally got some research. And their research  
22       is in, and the determination is there. The City  
23       even says that we know that there are going to be  
24       significant impacts to our estuary. You can't  
25       replace life with land, so, you know, habitat



1 restoration, as nice as it may sound and as many  
2 nice jobs that are going to get done with that  
3 money, it's still not going to replace the lives  
4 of the things that we're killing.

5 We heard a person say and I heard our  
6 vice mayor say the same thing, that once this  
7 stuff leaves the estuary, it's gone. It's just  
8 gone. It becomes fish food. Well, you know, I  
9 was taking somebody around today, showing him the  
10 estuary, and he's looking in and he's saying,  
11 well, there's no fish. And I don't have an answer  
12 for that, I don't know why there's no fish.

13 But I took him and showed him the  
14 outfall over there. Sure enough, here's a fish  
15 jumping out of the outfall, toward the outfall,  
16 going into the outfall, and we look, and there's a  
17 whole school of these fish, like where the  
18 temperature is taken -- and you guys can go down  
19 here and see this, I'm sure they're there all the  
20 time -- 200 feet is where they take the  
21 temperature, and then just probably 50 or 60 feet  
22 down past that, there's a whole school of fish  
23 there. It's like a Denny's Restaurant, they're  
24 lined up eating everything that comes out of that  
25 thing. So I don't know if they thrive better on

1 cooked vertebrae than raw vertebrae, but, you  
2 know, I supposed that fish were sushi eaters, I  
3 don't know. But, you know, I really think we need  
4 to look at this.

5 Because this plant came here with a 50-  
6 year lease on the use of water, and when they  
7 signed that lease it was a public utility, we all  
8 benefitted. The 50 years is up in 2004, and the  
9 City and Duke are trying to rush to get a new  
10 lease written, without even doing all of the  
11 science or taking it into any consideration, which  
12 will be another thing.

13 So I'm just saying if they don't want to  
14 do dry cooling here, and I don't know how it's  
15 going to fit on here, but everybody is talking  
16 about 20 acres. I don't know what happened to the  
17 107 acres that the property has. I mean, the old  
18 plant is supposedly on nine acres, I believe. So  
19 if nine acres and 20 acres add up to 107 acres, I  
20 don't know what happened to all the rest of the  
21 land, but it seems like they should be able to get  
22 enough space to do the right thing.

23 I know that they have the tank farm  
24 that's 60 acres or something, which is more than  
25 enough room to do dry cooling. They have a

1 pipeline. I know we didn't go over the  
2 alternatives yesterday on that, but I'll say it  
3 again, there's a tank farm up there. Put it up on  
4 the hill. There's a gas line right there. Sure,  
5 they've got to do some transmission lines, but  
6 maybe that's the alternative, but let's stop using  
7 the estuary, and it's more than just cooling water  
8 for this plant. Thanks.

9 COMMISSIONER KEESE: Thank you.

10 HEARING OFFICER FAY: Thank you,  
11 Mr. Nelson.

12 Bill Yates.

13 MR. YATES: Good evening, everyone. My  
14 name is Bill Yates. I'm a Morro Bay resident. I  
15 was the mayor of Morro Bay from '92 to '96. I'm a  
16 mariner, I'm a fisherman. I'm a lover of the  
17 ocean and I love our Bay.

18 I can't believe that I was up there for  
19 four years and I'm nervous here, but I guess I  
20 have to get used to this again.

21 I know that everybody is staying here.  
22 I know of a couple of hotels that are filled with  
23 people involved in this meeting, and I hope that  
24 you've been down at our waterfront and eating  
25 meals and looking at the Bay for yourself, and

1       seeing the sea otters down there with the  
2       shellfish as big as dinner plates and rocks and  
3       cracking them open. And in the back of the Bay we  
4       have a huge population of harbor seals that live  
5       on fish.

6                I've come in here at night with my crab  
7       lights on and the water is just solid white with  
8       smelt, and when my lights turn the corner, the  
9       pelicans come out in swarms and they're diving for  
10      the fish.

11              You can go on the piers and watch the  
12      fisherman, the recreational fisherman pull up fish  
13      after fish after fish, and look down at the  
14      pilings and see the barnacles. We have an oyster  
15      farm in the back that's producing millions and  
16      millions of oysters that live on the plankton.

17              This harbor is not dead. If you haven't  
18      seen for yourself, I really encourage you to call  
19      the Harbor Patrol, get on a boat, take a tour, see  
20      how it thrives with life. I would not want to see  
21      this harbor damaged in any way. It seems to me  
22      that we have a perfect example of industry and bay  
23      that are living successfully together.

24              You know, I have to, just based on what  
25      I see with my own eyes, reject that we're killing

1 the Bay, that the Bay has been killed, that we're  
2 killing all the fish, that we're killing 30  
3 percent of the fish. It just doesn't make sense,  
4 if you look with your own eyes, because this  
5 harbor is filled with fish. And filled with life,  
6 thriving on life, thriving on life.

7 So you probably can imagine that I'm  
8 against dry cooling. I am against dry cooling  
9 because I would not like to see your agency  
10 override ten or twenty or more of our local  
11 ordinances. Most small communities, certainly  
12 coastal communities are sensitive to other  
13 agencies dictating how they have to operate.

14 I respectfully disagree with the people  
15 who come up here and say if you put this to a vote  
16 right now, this town would vote it down. Well, I  
17 don't believe that. I don't know if there's time  
18 for a vote. If there was, you can be sure it  
19 would be on the ballot. And I believe that this  
20 town would support what they've already voted on,  
21 which is the new plant for all the reasons you've  
22 heard over and over again, but the biggest one is  
23 that we get that open space down there and we get  
24 rid of that plant, plus all of the other  
25 positives.

1                   So I guess that's all I have to say.  
2           Thank you for all your hard work. I can't imagine  
3           doing what you do, day after day, regardless of  
4           where you're at. It's appreciated. Thanks.

5                   HEARING OFFICER FAY: Thank you.  
6           Appreciate that.

7                   COMMISSIONER KEESE: Thank you.

8                   HEARING OFFICER FAY: John Barta.

9                   MR. BARTA: Good evening, Hearing  
10          Officer Fay, members of the Commission. My name  
11          is John Barta and I've been a Planning  
12          Commissioner for the City of Morro Bay for the  
13          past seven years. My comments before you at this  
14          time are personal ones. The results of the formal  
15          City process are before you as City Council and  
16          Planning Commission resolutions.

17                   Far earlier than the submission of the  
18          Duke application, which is under consideration,  
19          the staff of the Energy Commission advised the  
20          community of Morro Bay that it should engage in  
21          direct dialogue with Duke Energy in order to  
22          ensure that our community needs were met with the  
23          project. We were led to believe that the Energy  
24          Commission would give substantial weight to the  
25          community concerns, particularly where agreement

1 would be reached between Duke and the City.

2 Accordingly, the City went into a very  
3 long, expensive, and serious dialogue with Duke,  
4 which resulted in the fundamental agreement  
5 wherein Duke would modernize its plant with state-  
6 of-the-art generators, provided that the existing  
7 plant were removed from the landscape, an  
8 unprecedented act, and further do everything  
9 possible to reduce the new facility to the  
10 smallest possible visual impact.

11 The agreement, along with many other  
12 considerations, took the form of a formal  
13 memorandum of understanding, which is now a  
14 completed, nearly completed memorandum of  
15 agreement. Some folks attacked the City for  
16 entering into a dialogue with Duke, and so the  
17 matter was put to a vote of the citizens in  
18 November of 2000.

19 During that vote, the project that is  
20 before you was well known at that time to the  
21 voters. The results of that vote, known locally  
22 as measure P, were stunning. Sixty-four percent  
23 of the voters supported the dialogue. This is why  
24 the City Council has been so clear to you about  
25 our opposition to dry cooling.

1           Today the community is upset, because  
2           the process has brought up to a point where the  
3           plan is being fundamentally steered in a very  
4           different direction. I would add here that you've  
5           seen six visual things today. There were 20 done  
6           originally. Only six were picked out, I could  
7           give you visuals on that, but you've got the  
8           application, you know there were 20 key  
9           observation points, one that results in a huge  
10          visual impact of the existing plant with another  
11          huge visual impact, one that is both noisy and  
12          will last for many years to come.

13                 We feel that the staff of the Energy  
14          Commission has, in effect, and it pains me to say  
15          this, double-crossed the citizens of this City on  
16          the most important single issue with regard to  
17          this application. Now we find ourselves in the  
18          hands of experts and officials from afar, who are  
19          apparently seriously considering this changed  
20          direction in the plan. This will affect the  
21          community which we live in and will continue to  
22          live in far after all of you have gone back to  
23          your own homes.

24                 I would add here that visual resources  
25          are coastal resources worth protecting, and we are



1       trying to protect coastal visual resources. Those  
2       are genuine resources that are recognized in our  
3       local coastal plan, recognized by the Coastal  
4       Commission, and that is why we have worked for a  
5       small-profile plant.

6               Comments by some experts here today,  
7       that with all the technical talent here, we should  
8       be able to achieve something like this result does  
9       not give us confidence. Please do not be misled.  
10      The community of Morro Bay has strongly opposed  
11      and will continue to oppose dry cooling.

12             I have to add some other comments  
13      because there have been some personal attacks here  
14      this evening, which I find shameful at this date.  
15      First of all, Duke did not provide any significant  
16      financial benefit for measure P. I was the person  
17      who led that campaign and all of our money came  
18      from the citizens of this town, some who gave more  
19      than others, but all from the citizens of this  
20      town.

21             I would also like to add that the  
22      memorandum of understanding between Duke and the  
23      City requires that Duke remove the proposed  
24      facility one day in the future. We believe that  
25      we are involved in a dialogue here where we can do

1 the possible, we just have to do it one step at a  
2 time.

3 By the way, I've heard some attacks here  
4 on the City Council for not doing due diligence  
5 with regards to this thing. These are very  
6 shameful attacks and I apologize that you may have  
7 been misled by those. I personally know of at  
8 least two City Council people who have taken their  
9 own time and expense to go to Crockett, to look at  
10 the dry air cooling there and to experience  
11 firsthand those effects, and those two supported  
12 the resolutions that you see.

13 I would like to add another comment  
14 briefly regarding the health of the Bay, you've  
15 heard a lot about that recently. I wish you could  
16 have been here a couple of years ago. A couple of  
17 years ago, the Rock looked like it was snow-  
18 covered, and it wasn't snow that was on the rocks,  
19 it was from the birds. I wonder what it was that  
20 the birds had eaten to put all that white on the  
21 rock, and I wonder what supported that food chain?  
22 Just a thought in passing. Thank you.

23 HEARING OFFICER FAY: Thank you.

24 Kim Kimball.

25 MR. SCHULTZ: Mr. Fay?

1 HEARING OFFICER FAY: Yes?

2 MR. SCHULTZ: We do have a problem with  
3 this room in that there is a meeting in 15  
4 minutes. So if we could hopefully round up public  
5 comment. I thought we had all night, but there is  
6 a meeting for dancing.

7 HEARING OFFICER FAY: Okay.

8 MR. SCHULTZ: Unless we want dancing  
9 going on while the meeting is going on, which my  
10 understanding is we can move it, but I don't know  
11 the conflict, how it came up.

12 HEARING OFFICER FAY: All right. Please  
13 keep that in mind.

14 MS. KIMBALL:

15 COMMISSIONER KEESE: Okay. Yeah, we  
16 only have two more speakers, but we also have some  
17 business we have to address --

18 HEARING OFFICER FAY: Right.

19 COMMISSIONER KEESE: -- so as fast as  
20 you can, please.

21 MS. KIMBALL: Okay. My name is Kim  
22 Kimball, and I'm the executive director of the  
23 Chamber of Commerce, and just a quick brief note  
24 before I read this letter from the Board of  
25 Directors of the Chamber of Commerce.

1           I, in my own capacity as the executive  
2     director of the Chamber of Commerce, have visited  
3     two plants with dry air cooling, so I know for a  
4     fact that the Planning Commission and the City  
5     Council members have done far more investigative  
6     resourcing than that. So I too apologize for  
7     being misled there.

8           "The Morro Bay Chamber of Commerce Board  
9     of Directors has reaffirmed its position of  
10    support for Duke Energy's modernization project.  
11    In particular, we support the modernization  
12    project Duke Energy has presented with the  
13    extensive input from Morro Bay City officials and  
14    citizens. This project incorporates extensive  
15    public input about all facets of the project and  
16    will be of significant benefit to the Morro Bay  
17    community.

18          "We strongly oppose dry cooling. Dry  
19    cooling would undermine the visual, noise, and  
20    land use benefits of the project, thus negatively  
21    affecting tourism, local businesses, and the  
22    residents' environment. We are concerned that the  
23    increasing regulatory requests endanger the  
24    economic viability of the project, and a  
25    reasonable habitat enhancement program with a

1 modernization plant is far superior to the status  
2 quo. Please support the habitat enhancement  
3 approach and encourage prompt action to complete  
4 the approval of the modernization project."

5 And I'll leave a copy of this letter  
6 with you. Thank you very much.

7 COMMISSIONER KEESE: Thank you.

8 HEARING OFFICER FAY: Thank you.

9 Colby Crotzer.

10 MR. CROTZER: Commissioner Fay, it's  
11 Colby Crotzer --

12 HEARING OFFICER FAY: Crotzer, I'm  
13 sorry.

14 MR. CROTZER: -- Morro Bay City Council.  
15 I'm one of five speaking as an individual Council  
16 member for the City of Morro Bay. Welcome,  
17 Commissioners Keese and Boyd. Thank you.

18 Before I begin, I would like to hope  
19 that we find some way to allow your hearing to  
20 take the public hearing, as promised, to the  
21 public rather than allowing a schedule conflict  
22 that's come up recently to curtail this process.

23 I will be very brief. As I have been  
24 elected twice here in this city, I believe I can  
25 pretend to some constituency. So part of my

1 standing before you is to validate not only the  
2 position that volunteers, particularly CAPE as an  
3 organization, what they have given to this  
4 community, untold hours of dedicated volunteerism  
5 out of love for my city, I want to at least thank  
6 them and I'm sure you would and have done the  
7 same.

8 When we talk about what people think,  
9 many of these recently characterized here from  
10 this podium aspersions to how the Council  
11 proceeded concerning their opinions written to you  
12 on dry cooling I'm afraid did not come up to my  
13 standard in that I begged my Council not to make  
14 those letters, not to write those letters to you  
15 prior to the workshop which would reveal your  
16 staff and other agencies' analyses of the  
17 potential impacts of dry cooling. So I have to  
18 validate that. It wasn't studied to the extent  
19 that I, as one Council member, would have  
20 preferred and encouraged.

21 In terms of alternatives themselves,  
22 describing that these other site locations are not  
23 pertinent because it doesn't impact the  
24 modernization of the present site of the Morro Bay  
25 power plant I think goes opposed to your

1 responsibility representing the State of  
2 California, our state, to be designing a statewide  
3 system. So these alternative locations I think  
4 should be taken seriously, and I know that they've  
5 been approached, so far anyway, in a supercilious,  
6 very surface manner, and I'm sorry to see that.

7 Because these power plants certainly  
8 don't belong on the coast anymore, and I know that  
9 you perhaps have been party to doing that at  
10 times, but it's time I think that that changed,  
11 given the new technology of other alternates of  
12 cooling them and other ways of putting this along  
13 a power grid, rather than the loss attendant to  
14 transmission lines that take them to that power  
15 grid.

16 On cooling options, I do support your  
17 staff along with the vast majority of the other  
18 agencies for a dry or hybrid system, something  
19 other than the once-through cooling. In short, if  
20 you don't do that, I think that it will be really  
21 a decision that will be detrimental to a half-  
22 century of the State of California's appreciation  
23 and use of the coast.

24 So if you must draw from the seawater,  
25 then draw it directly from the ocean, and I know

1       that has also been reviewed but not to the extent  
2       I think it warrants, rather than out of the bay  
3       waters.  Simply using that same system, but put  
4       the pipe out to the ocean.  You get cooler water,  
5       more efficiency for Duke, less detriment to the  
6       estuary, marine biology, and other attendant  
7       factors there.

8               The visual detriments are absurd.  I'm  
9       sorry, but please, if this is Duke's version of  
10      it, I prefer it to it without that, because where  
11      I live at Morro Bay, I have to look at the hard  
12      industrial look of that plant and I'd rather see  
13      the solid wall that looks like whatever ugly thing  
14      you might characterize it as, a white-front store,  
15      or something other than the machinery.  And I know  
16      that that's an overstatement, but that hard  
17      industrial look should be covered with something;  
18      if not with a building, perhaps block it with a  
19      cooling building.

20             On aquatic biology, I've touched on it  
21      but the Bay simply must be preserved.  They are so  
22      rare, these estuaries along the shore for every  
23      type of life, but particularly the life of the  
24      fisheries and the marine biology is very  
25      important.  The economic arguments about the



1 tourism serving revenue sources for my city I  
2 think are false, at least short-sighted.

3 In the long run, without a power plant  
4 there, I would say and assert strongly that the  
5 tourism industry here would be much more valuable.  
6 In the long run, people would come here for a look  
7 at this pristine area, without the industrial  
8 plant in the middle of it, which is offensive to  
9 everyone I've ever spoken to in the City of Morro  
10 Bay, whether they're for this project or not.  
11 Their first look, as probably was yours, my  
12 goodness, what is that doing in the middle of all  
13 of this natural beauty. That is an economic  
14 benefit for our city in perpetuity, if, in fact,  
15 we reclaim it.

16 The importance of estuaries to ocean  
17 biological health is perhaps a recent scientific  
18 discovery. It's only really coming to light how  
19 important it is, but the impact of this -- Pardon  
20 me? Is it time?

21 HEARING OFFICER FAY: Yes.

22 MR. CROTZER: Okay, the impact of this  
23 mechanical predator is only now coming clear.  
24 Thank you. I'm sorry I ran over.

25 HEARING OFFICER FAY: Thank you. Sorry

1 to cut off a City Council member in his own town,  
2 but we're also worried about getting kicked out of  
3 the building.

4 Rodger Anderson.

5 MAYOR ANDERSON: Thank you, gentlemen.

6 I arrived late this afternoon, I had appointments  
7 in Santa Barbara. I'm the mayor of Morro Bay.  
8 I've been elected four times to the City Council,  
9 twice as a Council member and twice as mayor.  
10 I've lived here almost my entire life. My family  
11 goes back five generations here.

12 The NEP, National Estuary Program, and  
13 their work program puts the once-through cooling  
14 way down on the list of problems with our estuary.  
15 When the Department of Navy and the Corps of  
16 Engineers came to Morro Bay and redesigned this  
17 harbor, and I've talked to the old-timers -- my  
18 father, my great-grandfather told me stories, I've  
19 talked to some of the farmers -- things change.  
20 The flow of water, it's very clear out there, and  
21 the siltation brought on by that as well as  
22 upstream uses have caused the siltation to take  
23 place in a very fast, speeded-up fashion.

24 What will save this estuary is  
25 mitigation upstream, and taking care of problems.

1 And the NEP is concerned about funding from both  
2 state and federal sources, given the budget  
3 problems that exist in both of those areas. There  
4 is an opportunity for some funding here.

5 There was a City election, there were  
6 two City elections. For the first time in the  
7 history of this town, all three incumbents on the  
8 ballot were re-elected, and it was because of the  
9 strong stance they took in favor of the  
10 modernization project. I would dare say that the  
11 people who oppose the project are, for the most  
12 part, the same people who are now supporting dry  
13 cooling.

14 I believe to my core that if we were to  
15 put this on a ballot tomorrow that if people had  
16 to choose between the new project with dry cooling  
17 or continuing with the old plant, they'd say keep  
18 the old plant there. And what I really believe is  
19 that we will not see a plant there with dry  
20 cooling. We will fight it as a city.

21 What I believe will be there is either  
22 the modernization project with once-through  
23 cooling or the old plant continuing to operate  
24 with once-through cooling. And I hope that  
25 mitigation will take place upstream where it

1 really can do things to lengthen the estuary.

2 If the Bay fills in and we have a  
3 meadow, and you can ask the NEP, without the plant  
4 there, the degradation of the estuary would  
5 continue at the rapid pace that's been going on  
6 for years. The plant didn't cause it, the  
7 redesign of the harbor caused that, along with  
8 poor upstream maintenance and flooding, fires,  
9 things like that. That's what's caused the  
10 estuary to degrade.

11 I hope that you'll listen to what this  
12 community has said, and I thank you for being here  
13 and allowing me to speak.

14 COMMISSIONER KEESE: Thank you.

15 HEARING OFFICER FAY: Thank you, Mayor.  
16 Appreciate that.

17 That concludes our taking of public  
18 comment, and we thank you all for coming and  
19 bearing with us, and that concludes our hearing.  
20 And now we're off the record.

21 (Whereupon, at 6:30 p.m., the hearing  
22 was adjourned, to reconvene at 9:00  
23 a.m., Thursday, June 6, 2002, at this  
24 same location.)

25 --oOo--

## CERTIFICATE OF REPORTER

I, JAMES A. RAMOS, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 10th day of June, 2002.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345